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## INDEXERS.

J. BRUCE.  
A. W. CROSSLEY, M.Sc., Ph.D.  
T. EWAN, B.Sc., Ph.D.  
M. O. FORSTER, Ph.D.  
J. S. HALDANE, M.A., M.D.

H. A. D. JOWETT, D.Sc.  
P. A. E. RICHARDS.  
L. J. SPENCER, M.A.  
J. F. THORPE, Ph.D.

### A.

*Abies canadensis*, oil of (UMNEY), A., i, 380.  
*Abies excelsa*, temperature optimum for respiration of (ZIEGENBEIN), A., ii, 265.  
oil of (UMNEY), A., i, 380.  
Abrin, poisonous effect of, on algæ and infusoria (BOKORNY), A., ii, 669.  
Absorption of acids and alkalis from solution by platinum black (KELLNER), A., ii, 232.  
of iron by the living body (WOLTERING), A., ii, 197.  
physiological, physical factors in (HAMBURGER), A., ii, 50.  
of fluids from the tissues into the blood (STARLING), A., ii, 438.  
influence of nerves on, in the intestine (REID), A., ii, 663.  
of peptone by the intestine (REID), A., ii, 318.  
Absorption-coefficients of gases. See Solubility.  
Acanthite from Colorado (CHESTER), A., ii, 566.  
Acenaphthene, magnetic rotatory power, &c., of (PERKIN), T., 1088, 1089, 1197, 1242.  
heat of solution in methylic, ethylic, and propylic alcohols, chloroform, and toluene (SPEYERS), A., ii, 411.

Acenaphthene, oxidation of (HODGKINSON), P., 1896, 110.  
Acenaphtheneglycol. See Acenaphthyleneglycol.  
Acenaphthenone, from acenaphthaquinone: its picrate, and phenylhydrazone (GRAEBE and JEQUIER), A., i, 444.  
brom- (GRAEBE and JEQUIER), A., i, 444.  
dichlor- (GRAEBE and JEQUIER), A., i, 444.  
Acenaphthyleneglycol, modifications of (GRAEBE and JEQUIER), A., i, 444.  
Acetal, heat of combustion of (RIVALS), A., ii, 588.  
chlor-, heat of combustion of (RIVALS), A., ii, 589.  
Acetaldehyde, formation of, from ether by action of light (RICHARDSON and FORTEY), T., 1355; P., 1896, 166.  
action of sodium on (FREER), A., i, 589.  
and benzoic chloride, action of sodium on (FREER), A., i, 589.  
behaviour of, towards 1:3:4-xylydine (MILLER and PLÖCHL), A., i, 534.  
estimation of, in spirits of wine (MEDICUS), A., ii, 505.  
Paraldehyde, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.  
Acetaldehydediphenylhydrazine (CAUSSE), A., i, 611.

- Acetaldehydephenylhydrazone, modifications of (FISCHER), A., i, 361.
- Acetamide, heat of solution in water and ethylic alcohol of (SPEYERS), A., ii, 411.
- action of sodium hypochlorite on (DE CONINCK), A., i, 282.
- action of phosphorus trichloride on (LACHMANN), A., i, 282, 283.
- condensation of, with chloracetone (OSTROGOVICH), A., i, 262.
- salts of (TOPIN), A., i, 282, 283.
- Acetamide, dibrom- (WOLFF and SCHWABE), A., i, 524.
- chlorobrom- (CONRAD and SCHMIDT), A., i, 409.
- cyan-, thermochemical data of (GUINCHANT), A., ii, 465.
- action of sodium ethoxide on (ERRERA), A., i, 528.
- action of sodium ethoxide and methylic, ethylic, propylic, or benzylic iodide on (ERRERA), A., i, 529.
- Acetamidooacetic acid (RADENHAUSEN), A., i, 137.
- ethylic salt (RADENHAUSEN), A., i, 137.
- Acetamido-acetohydrazide (RADENHAUSEN), A., i, 138.
- Acetamido-acetylcarbanil (RADENHAUSEN), A., i, 138.
- Acetamidobenzene, brom- (SLOSSON), A., i, 216.
- o*-Acetamidobenzenyloxime-ethenyl (PINNOW and SÄMANN), A., i, 367.
- Acetamidobenzhydrol (GABRIEL and STELZNER), A., i, 506.
- o*-Acetamidobenzonitrile (PINNOW and SÄMANN), A., i, 366.
- o*-Acetamidobenzophenone, oxime of (AUWERS and EWING), A., i, 504.
- o*-Acetamidobenzyl-*p*-bromaniline (BUSCH and HEINEN), A., i, 159.
- o*-Acetamidobenzyl-*p*-chloraniline (BUSCH and VOLKENING), A., i, 158.
- $\alpha$ -Acetamido- $\pi$ -bromocamphor (LAPWORTH and KIPPING), T., 317.
- Acetamidocarbazine, nitro- (MAZZARA and LEONARDI), A., i, 392.
- p*-Acetamidocarvacrol (PLANCHER), A., i, 359.
- nitro-, acetate (SODERI), A., i, 359.
- Acetamidodiphenyl (PICTET and HUBERT), A., i, 483.
- 4-Acetamidomenthyl (TIEMANN and KRÜGER), A., i, 384.
- Acetamidomenthone (TIEMANN and KRÜGER), A., i, 384.
- 1-Acetamido-3-methylindazole, 4-chloro- (GABRIEL and STELZNER), A., i, 320.
- $\beta$ -Acetamido- $\mu$ -methylthiazole- $\alpha$ -carboxylacetamide (WEIDEL and NIE-MIŁOWSKI), A., i, 106.
- $\beta$ -Acetamido- $\mu$ -methylthiazole- $\alpha$ -carboxylonitrile (WEIDEL and NIE-MIŁOWSKI), A., i, 106.
- Acetamidonaphthaquinone, condensation of, with benzyl-*o*-phenylenediamine (KEHRMANN and TIKH-VINSKY), A., i, 511.
- condensation of, with phenyl-*o*-phenylenediamine (KEHRMANN and HERTZ), A., i, 508.
- 2 : 3-Acetamidonaphthoic acid (MÜHLAU), A., i, 243.
- 2' : 1-Acetamidonaphthol (FRIED-LÄNDER and ZINBERG), A., i, 244.
- 1 : 2'-Acetamidonaphthol (FRIED-LÄNDER and ZINBERG), A., i, 244.
- 1 : 3 : 4-Acetamidonaphtholsulphonic acid (FRIEDLÄNDER and RÜDT), A., i, 569.
- Acetamidonitrodiphenylamine. See Diphenylamine.
- o*-Acetamidophenol and its acetyl derivative (MELDOLA, WOOLCOTT, and WRAY), T., 1323.
- 2 : 4-bromonitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1326; P., 1896, 163.
- anhydride (MELDOLA, WOOLCOTT, and WRAY), T., 1327; P., 1896, 164.
- 5-nitro-, acetyl derivative of (MELDOLA, WOOLCOTT, and WRAY), T., 1325; P., 1896, 163.
- p*-Acetamidophenol, benzyl ether of (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.
- m*-Acetamidophenyl *p*-tolyl ketone (LIMPRICHT and LENZ), A., i, 41.
- p*-Acetamidophenyl *p*-tolyl ketone (LIMPRICHT and SAMIETZ), A., i, 42.
- Acetamidophenylazimidobenzene. See Phenylaminoazimidobenzene.
- Acetamidophenylic ether (HAEUSSERMANN and TEICHMANN), A., i, 533.
- Acetamidophenyltolylsulphone. See Phenylaminotolylsulphone.
- 1-Acetamidoquinoline (CLAUS and SETZER), A., i, 498.
- 3-nitro- (CLAUS and HARTMANN), A., i, 392.
- 4-nitro- (CLAUS and HARTMANN), A., i, 391.
- 3-Acetamidoquinoline (CLAUS and SCHNELL), A., i, 320.
- 2-brom-, and its hydrobromide (CLAUS and SCHNELL), A., i, 320.
- dibrom- (CLAUS and SCHNELL), A., i, 320.

- 4-Acetamidoquinoline (CLAUS and SETZER), A., i, 499.  
 1-brom- (CLAUS and SETZER), A., i, 499.  
 5-Acetamidotetrazole (THIELE and INGLE), A., i, 107.  
 Acetamidothymol (PLANCHER), A., i, 358.  
 nitro-, acetate of (SODERI), A., i, 359.  
 4-Acetamido-2 : 2 : 6-trimethylpiperidine and its aurochloride and thio-carbamate (HARRIES), A., i, 318.  
 4-Acetamido-*m*-xylene, 5-iod- (KERSCHRAUM), A., i, 162.  
 Acetanilide, constitution of (COHEN and ARCHDEACON), T., 96.  
 magnetic rotatory power, &c., of (PERKIN), T., 1114, 1216, 1246.  
 heat of solution in methylic and ethylic alcohols and chloroform (SPEYERS), A., ii, 411.  
 action of bromine on (VAUBEL), A., i, 157.  
 action of sulphur on (HOFMANN LECTURE), T., 713.  
 use of, in preparing aniline derivatives (HOFMANN LECTURE), T., 695.  
 salts of (TOPIN), A., i, 283.  
 hydriodide (WHEELER and WALDEN), A., i, 367.  
 di- and tetra-iodide of (WHEELER and WALDEN), A., i, 367.  
 sodium ethoxide (COHEN and ARCHDEACON), T., 93.  
 sodium methoxide, preparation of (COHEN and ARCHDEACON), T., 91; P., 1896, 8.  
 action of benzoic chloride on (COHEN and ARCHDEACON), T., 92.  
 Acetanilide, *p*-brom-, hydrobromide (WHEELER and WALDEN), A., i, 367.  
 hydrobromide, di- and tetra-bromide of (WHEELER and WALDEN), A., i, 367.  
 1 : 3 : 5-*tribrom*-, mercury compound of (WHEELER and MCFARLAND), A., i, 609.  
 2 : 4 : 5-*tribrom*- (JACKSON and GALLIVAN), A., i, 353.  
 4 : 3-bromonitro- (WHEELER), A., i, 23.  
 6 : 3-bromonitro- (WHEELER), A., i, 156.  
*p*-chlor- (CHATTAWAY and EVANS), T., 849; P., 1896, 97.  
*o*-*p*-dichlor-, and its hypochlorite (CHATTAWAY and EVANS), T., 849, 850; P., 1896, 97.  
 cyan- (HALLER), A., i, 32.  
 Acetanilide, *m*-nitro-, dibromide (WHEELER), A., i, 23.  
 hydrobromide, di-, tetra-, and hexa-bromide of (WHEELER and WALDEN), A., i, 367.  
*p*-nitro-, heat of combustion of (MATIGNON and DELIGNY), A., ii, 88.  
 Acet-*o*-anisidide, 4-nitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1330; P., 1896, 164.  
 5-nitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1331; P., 1896, 164.  
 Aceto-*p*-aniside, *o*-iod- (REVERDIN), A., i, 475.  
 Acetazimidobenzoic acid (ZINCKE and HELMERT), A., i, 550.  
 Acetenamine. See Diethylenediamine.  
 Acetethylanilamide, action of sodium methoxide and ethoxide on (COHEN and ARCHDEACON), T., 95; P., 1896, 8.  
 Acethydroxamic acid, action of benzoic chloride on (NEF and JONES), A., i, 460.  
 Acetic acid, formation of, from ether by action of light (RICHARDSON and FORTEY), T., 1355; P., 1896, 166.  
 production of, from various woods (BARILLOT), A., i, 403.  
 magnetic rotatory power of (PERKIN), T., 1251.  
 heat of electrolytic dissociation of (KORIRIGHT), A., ii, 463.  
 specific heat of solid and liquid (MASSOL and GUILLOT), A., ii, 8.  
 heat of evaporation of (MARSHALL and RAMSAY), A., ii, 349.  
 and water, distillation of a mixture of (GOREL), A., i, 463.  
 freezing points of aqueous solutions of (PONSOT), A., ii, 412.  
 freezing points of concentrated aqueous solutions of (ROLOFF), A., ii, 291.  
 influence of pressure on the freezing point of a benzene solution of (COLSON), A., ii, 157.  
 density of very dilute solutions of (KOHLEAUSCH), A., ii, 90.  
 action of uranium salts on (FAY), A., i, 465.  
 absorption by silk of dilute (WALKER and APPLEYARD), T., 1346; P., 1896, 147.  
 (pyroligneous acid), estimation of acidity of (SCHEURER-KESTNER), A., ii, 454.  
 Acetic acid, lead salts, influence of, on the estimation of invert sugar (BORNTRÄGER), A., ii, 278.

- Acetic acid,  
 lead tetracetate, history and preparation of (HUTCHINSON and POLLARD), T., 212, 213; P., 1896, 31.  
 crystallography of (HUTCHINSON and POLLARD), T., 215; P., 1896, 31.  
 action of glacial acetic acid on (HUTCHINSON and POLLARD), T., 214.  
 action of halogen acids on (HUTCHINSON and POLLARD), T., 218, 219, 220; P., 1896, 31.  
 action of hydrogen sulphide on (HUTCHINSON and POLLARD), T., 220.  
 action of orthophosphoric acid on (HUTCHINSON and POLLARD), T., 221; P., 1896, 31.  
 action of sulphuric acid on (HUTCHINSON and POLLARD), T., 221.  
 action of water on (HUTCHINSON and POLLARD), T., 214, 218; P., 1896, 31.
- Acetic acid, acetamidocarv acrylic salt of (SODERI), A., i, 359.  
*o*-acetamidophenyl salt, and its hydrate and 5-nitro-derivative (MELDOLA, WOOLCOTT, and WRAY), T., 1323; P., 1896, 163.  
 acetamidothymyl salt, nitro- (SODERI), A., i, 359.  
 acetoguaiacolamide salt, nitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1331; P., 1896, 164.  
 3:4-aminohydroxybenzoic acid salt (DIEPOLDER), A., i, 615.  
 amylic salt, molecular volume of, in organic solvents (NICOL), T., 143; P., 1895, 237.  
*iso*-amylic salt, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.  
 anthraflavic acid salt (HOFMANN LECTURE), T., 633.  
 benzaldehyde, *m*-iodoso-, salt (PATERSON), T., 1004; P., 1896, 153.  
 benz-*anti*-aldoxime salt (LUXMOORE), T., 188.  
 butylic salt, molecular volume of, in organic solvents (NICOL), T., 143; P., 1895, 237.  
 coniine salt, cryoscopic behaviour in benzene solution of (ZOPPELLARI), A., ii, 515.  
 crotonylic salt (CHARON), A., i, 661.  
 di-*iso*-amylamine salt, cryoscopic behaviour in benzene solution of (ZOPPELLARI), A., ii, 515.  
 di-*iso*-butylamine salt, cryoscopic behaviour in benzene solution of (ZOPPELLARI), A., ii, 515.  
 Acetic acid, *m*-diethylaminophenyl salt (MEYENBURG), A., i, 292.  
 dipropylamine salt, cryoscopic behaviour in benzene solution of (ZOPPELLARI), A., ii, 515.  
 duroquinol salt (RÜGHEIMER and HANKEL), A., i, 677.  
 ethylic salt, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237; (MARSHALL and RAMSAY), A., ii, 349.  
 hydrolysis of, by acids under pressure (ROTHMUND), A., ii, 594.  
 rate of hydrolysis by sodium hydroxide and ethoxide in alcoholic solution (GENNARI), A., ii, 413.  
 ethylic hydroxymethylenephénylacetate salt, dibromide of (WISLICENUS), A., i, 553.  
 formanilide mercury salt (WHEELER and McFARLAND), A., i, 609.  
 guaiacol salt (MELDOLA), P., 1896, 126.  
 nitro- (MELDOLA), P., 1896, 126.  
 2-hydroxybenzylideneacetone salt, 5-bromo- (KOSTANECKI and SCHNEIDER), A., i, 614.  
 hydroxymethylenephénylacetate salt, of (WISLICENUS), A., i, 553.  
 isatinanhydroglycopyrogallol salt (FRIEDLÄNDER and RÜDT), A., i, 607.  
*iso*- $\beta$ -lapachol salt (HOOKER), T., 1364.  
 $\alpha$ -lapachone salt (HOOKER), T., 1371, 1372.  
 methylic salt, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237; (MARSHALL and RAMSAY), A., ii, 349.  
 molecular volume of the, in organic solvents (NICOL), T., 143; P., 1895, 237.  
 hydrolysis of, by acids under pressure (ROTHMUND), A., ii, 594.  
 rate of hydrolysis by sodium hydroxide and ethoxide (GENNARI), A., ii, 413.  
 estimation of, in pyroligneous products (SCHEURER-KESTNER), A., ii, 454.  
 peonol salt, bromo-, and its piperonaldehyde derivative (FRIEDLÄNDER and RÜDT), A., i, 607.  
 phenol, 4-chloro-3-nitro-salt (MELDOLA, WOOLCOTT, and WRAY), T., 1323; P., 1896, 163.  
 phenol, 2-chloro-4-nitro-, salt of (MELDOLA, WOOLCOTT, and WRAY), T., 1328; P., 1896, 164.



- Acetic acid, phenylhydrazine salt, cryoscopic behaviour of, in benzene solution (ZOPPELLARI), A., ii, 515.  
phenylic salt, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1075, 1076, 1179, 1238.  
piperidine salt, cryoscopic behaviour of, in benzene solution (ZOPPELLARI), A., ii, 515.  
propylic salt, heat of evaporation of (MARSHALL and RAMSAY), A., ii, 349.  
pyrogallol salt, trichloro- (BIÉTRIX), A., i, 651.  
resacetophenone salt (FRIEDLÄNDER and RÜDT), A., i, 607.  
bromo- (FRIEDLÄNDER and RÜDT), A., i, 607.
- Acetic acid, amino-. See Glycocine.  
ethylic salt, hydrochloride of, action of nitrous acid on (CURTIUS), A., i, 337.  
action of ethylic chlorocarbonate on (HANTZSCH and METCALF), A., i, 521.  
brom-, heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.  
chloro- derivatives of, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1172, 1236.  
heat of combustion of the ethylic salts of (RIVALS), A., ii, 588.  
rate of etherification of (LICHTY), A., ii, 557.  
action of hydroxylamine on (HANTZSCH and WILD), A., i, 285.  
chlor-, heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.  
thermochemical data of the amide and ammonium salt of (RIVALS), A., ii, 400.  
dichlor-, heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.  
freezing points of dilute solutions of (WILDERMANN), A., ii, 351.  
trichlor-, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1172, 1236.  
electrolytic conductivity of ethereal solutions of (MALTBY), A., ii, 144.  
freezing points of dilute solutions of (WILDERMANN), A., ii, 351.  
thermochemical data of the amide and ammonium salt of (RIVALS), A., ii, 410.  
methyamides of, action of nitric acid on (FRANCHIMONT), A., i, 602.
- Acetic acid, cyan-, thermochemical data of (GUINCHANT), A., ii, 465.  
action of isobutaldehyde on (BRAUN), A., i, 594.  
ethylic salt, thermochemical data of (GUINCHANT), A., ii, 12.  
methylic salt, thermochemical data of the (GUINCHANT), A., ii, 12.  
sodio-, ethylic salt, action of acetic chloride on (GUINCHANT), A., i, 594.  
methylic salt, action of acetic chloride on (GUINCHANT), A., i, 594.  
hydroxylamino- (HANTZSCH and WILD), A., i, 286.  
oxime, nitro-, ethylic salt of (JOVITSCHITSCH), A., i, 82.  
thio-, behaviour of, with certain inorganic salts (TARUGI), A., i, 125.
- Acetic anhydride, action of hydrogen fluoride on (COLSON), A., i, 346.  
Acetic fluoride (COLSON), A., i, 346.  
Acetic peroxide (VANINO and THIELE), A., i, 597.
- Acetic- $\alpha$ -sulphonepropionic acid (LOVÉN), A., i, 413.  
Acetic- $\beta$ -sulphonepropionic acid (LOVÉN), A., i, 413.
- Acetic- $\alpha$ -thiopropionic acid. See Lactylglycollic acid, thio-.  
Acetic- $\beta$ -thiopropionic acid. See Glycolhydraerylic acid, thio-.
- Acetoacetic acid, ethylic salt, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1172, 1236.  
volatility of its copper compound (JAPP and LANDER), T., 737.  
tautomerism of (TRAUBE), A., i, 593.  
action of bromine on, in presence of carbon bisulphide (CONRAD and SCHMIDT), A., i, 409.  
action of bromine on, in presence of water (CONRAD and SCHMIDT), A., i, 409.  
action of nitric acid and nitrous acid on (JOVITSCHITSCH), A., i, 82.  
action of ethylic orthoformate on (CLAISEN), A., i, 463.  
action of ethylic chlorofumarate and ethylic chloromaleate on (RUHEMANN and TYLER), T., 532; P., 1896, 73.  
and glyoxylic acid, action of sulphuric acid on (BOETTINGER), A., i, 410, 411.  
and ethylic  $\alpha$ -brom-iso-butyrate, action of zinc on (PERKIN and THORPE), P., 1896, 156.

- Acetoacetic acid, ethylic salt, velocity of formation of alkyl derivatives of (BISCHOFF), A., i, 84.  
 condensation of, with aldehydes (KNOEVENAGEL), A., i, 210.  
 condensation of, with benzil (JAPP and LANDER), T., 736; P., 1895, 146.  
 condensation of, with  $\alpha$ -chlorocrotonic acid (RUHMANN and WOLFF), T., 1391; P., 1896, 166.  
 condensation of, with formaldehyde (SCHIFF and PROSIO), A., i, 250.  
 condensation of, with piperazine (ROSDALSKY), A., i, 257.  
 methylic salt, thermochemical data of (GUINCHANT), A., ii, 12.
- Acetoacetic acid,  $\alpha$ - and  $\gamma$ -brom-, ethylic salt (CONRAD and SCHMIDT), A., i, 409.
- di*brom-, ethylic salt, action of heat on (WOLFF and SCHWABE), A., i, 522, 523.
- $\alpha\alpha$ -*di*brom-, ethylic salt, action of, with thiocarbamide (CONRAD and SCHMIDT), A., i, 409.
- $\alpha\alpha$ -chlorobrom-, ethylic salt (CONRAD and SCHMIDT), A., i, 409.
- cyan-, ethylic salt, thermochemical data of (GUINCHANT), A., ii, 12.  
 methylic salt, thermochemical data of (GUINCHANT), A., ii, 12.
- oxime, ethylic salt, *syn*- and *anti*-modifications, and their bromine derivatives (JOVITSCHITSCH), A., i, 82, 83.  
 crystalline, condensation product of (SCHIFF), A., i, 83.
- amphidioxime, ethylic salt (SCHIFF), A., i, 83.
- sodio-, ethylic salt, molecular weight of (BECKMANN and SCHLIEBS), A., i, 124.  
 action of ethylic  $\alpha$ -bromisobutylacetate on (AUWERS and SCHIFFER), A., i, 644.  
 action on ethylic  $\beta$ -bromolevulinate (EMERY), A., i, 638.  
 action of ethylic chloracetate on (BISCHOFF), A., i, 466.  
 action of ethylic  $\beta$ -iodopropionate on (BENTLEY and PERKIN), T., 1511.
- sodioalkyl-, comparative ease of the action of the ethylic salts of *d*-bromo-fatty acids on the ethylic salts of (BISCHOFF), A., i, 464.
- Acetoacetanilide, oxime of (SCHIFF), A., i, 83.
- Acetoacetonilhydrazide (CURTIUS and HOFMANN), A., i, 648.
- Acetoamnygdalyl-*p*-phenetoilamide (WENGHÖFFER), A., i, 360.
- Acetobenzamide (BLACHER), A., i, 33.
- Acetobenzanilide (WHEELER and MCFARLAND), A., i, 609.
- Aceto-*o*-benzoic sulphinide (ECKENROTH and KOERPPEN), A., i, 438.
- Acetobenzylanilide (BLACHER), A., i, 33.
- Acetochloropyridinecarboxylic acid, di-chlor- (ZINCKE and WEIDERHOLD), A., i, 501.
- Acetodibenzoethylenediamine (LADENBURG), A., i, 201.
- Aceto-1 : 4 : 2-dimethylnaphthylamide (CANNIZZARO and ANDREOCCHI), A., i, 488.
- Acetodimethyl-3 : 4-tolylenediamine (PINNOW), A., i, 162.
- Acetodiphenylamide, action of sodium methoxide and ethoxide on (COHEN and ARCHDEACON), T., 94; P., 1896, 8.
- Aceto-2 : 5-diphenyldisulphone-*p*-aminophenylamide (HINSBERG and HIMMELSCHNEIN), A., i, 686.
- Acetodipropylene-*p*-hydrazodicarbothi-*amide* (FREUND and HEILBRUN), A., i, 416.
- Aceto-*p*-ethoxyphenyl-1 : 2 : 5-tolylenediamine (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 24.
- Aceto-4-ethoxy-*m*-tolyl-*p*-phenylenediamine (JACOBSEN, FERTSCH, MARSDEN, and SCHKOLNIK), A., i, 24.
- Aceto-4-ethoxy-*o*-tolyl-*p*-phenylenediamine (JACOBSEN, FERTSCH, MARSDEN, and SCHKOLNIK), A., i, 24.
- Aceto-*p*-ethoxy-*m*-tolyl-1 : 2 : 5-tolylenediamine (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 26.
- Aceto-*p*-ethoxy-*o*-tolyl-1 : 2 : 5-tolylenediamine (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 26, 27.
- Acetoguaiacolamide, nitro-  
 $[\text{OH}:\text{OMe}:\text{NO}_2:\text{NHAc} = 1:2:4:6]$  (MELDOLA, WOOLCOTT, and WRAY), T., 1331; P., 1896, 164.
- Acetoguanamide. See Methylidioxotriazine.
- Acetohippurylhydrazine, symmetrical (CURTIUS), A., i, 37.
- Acetohippurylphenylhydrazine (CURTIUS), A., i, 37.
- Acetohydrazide, preparation of (CURTIUS and HOFMANN), A., i, 648.
- Acetohydroxydiphenylamine (NIETZKI and SIMON), A., i, 164.

- Aceto- $\alpha$ -hydroxy- $\alpha\beta$ -diphenylethylamine (SÖDERBAUM), A., i, 484.
- Aceto- $\beta$ -lactylcarbamide (WEIDEL and ROITHNER), A., i, 470.
- Acetomenthoximic acid (BECKMANN and MEHRLÄNDER), A., i, 312.
- Aceto-*m*-methoxyphenylamide, compound of, with iodine (PIUTTI), A., i, 364.
- Aceto-*p*-methylbenzylamide (LUSTIG), A., i, 163.
- Acetomethylcarbamide, product of, distillation of (SCHIFF), A., i, 530.
- Aceto- $\beta$ -methyl- $\beta$ -lactylcarbamide (WEIDEL and ROITHNER), A., i, 470.
- Acetomethyl-*p*-toluidide, *o*-nitro- (PINNOW), A., i, 161.
- Aceto- $\alpha$ -naphthylamide sodium methoxide (COHEN and ARCHDEACON), T., 93; P., 1896, 8.
- Aceto- $\beta$ -naphthylamide sodium ethoxide (COHEN and ARCHDEACON), T., 93; P., 1896, 8.
- Aceto- $\alpha$ -naphthylamide sodium methoxide (COHEN and ARCHDEACON), T., 93; P., 1896, 8.
- Acetone, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- barium hydrogen sulphite (FAGARD), A., i, 39.
- strontium hydrogen sulphite (FAGARD), A., i, 39.
- compounds of polyhydric alcohols with (SPEIER), A., i, 77.
- action of magnesium on (KEISER), A., i, 457.
- action of ethylic orthoformate on (CLAISEN), A., i, 464.
- action of ethylic  $\alpha$ -bromopropionate on (PERKIN and THORPE), T., 1482; P., 1896, 156.
- action of zinc and ethylic bromisobutyrate on (REFORMATSKY and PLESCONOSSOFF), A., i, 128.
- condensation of, with salicylaldehyde (CORNELSON and KOSTANECKI), A., i, 240.
- causes of presence of, in urine (ABRAM), A., ii, 264.
- sources of, in urine (WEINTRAND), A., ii, 490.
- examination of (SCHWEITZER and LUNGWITZ), A., ii, 486.
- estimation of (GEELMUYDEN), A., ii, 679.
- Acetone, chlor-, action of potassium iodide on (SCHOLL and MATTHAIPOULOS), A., i, 521.
- action of hydroxylamine on (HANTZSCH and WILD), A., i, 285.
- Acetone, chlor-, action of hydroxylamine hydrochloride and sodium carbonate on (SCHOLL and MATTHAIPOULOS), A., i, 520.
- condensation of, with acetamide (OSTROGOVICH), A., i, 262.
- iod- (SCHOLL and MATTHAIPOULOS), A., i, 521.
- iso*-Acetone ethyl ether. See Ethoxypropylene.
- Acetonedicarboxylic acid and acetaldehyde, action of hydrogen chloride on (PETRENKO-KRITSCHENKO and STANISCHESKY), A., i, 472.
- and benzaldehyde, action of hydrogen chloride on (PETRENKO-KRITSCHENKO and STANISCHESKY), A., i, 472.
- condensation of, with benzil (JAPP and LANDER), P., 1896, 109.
- isobutylic* salt, condensation of, with benzaldehyde (PETRENKO-KRITSCHENKO and ARZIBASCHEFF), A., i, 671.
- ethylic salt, action of ethylic orthoformate on (CLAISEN), A., i, 464.
- substituted, derivatives of alkylic salts, action of phosphorous pentachloride on (PETRENKO-KRITSCHENKO, PISSARSCHESKY, and HERSCHKOWITSCH), A., i, 134.
- Acetonesemicarbazone, products of distillation of (THIELE and HEUSER), A., i, 208; (SCHOLTZ), A., i, 343.
- action of hydrogen cyanide on (THIELE and HEUSER), A., i, 340.
- zinc chloride compound of (THIELE and HEUSER), A., i, 208, 209.
- Acetonetetrazylhydrazone (THIELE and INGLE), A., i, 107.
- Acetonitrile from magnesium nitrite and acetic anhydride (EMMERLING), A., i, 591.
- and acetic acid, action of hydrogen chloride on (COLSON), A., i, 282.
- and propionic acid, action of hydrogen chloride on (COLSON), A., i, 282.
- Acetonylacetic acid. See Levulinic acid.
- Acetonylacetone, action of potassium cyanide and hydrochloric acid on (ZELINSKY and ISAJEFF), A., i, 413.
- Acetonyl-*o*-benzoic sulphinide (ECKENROTH and KLEIN), A., i, 304.
- brom- (ECKENROTH and KLEIN), A., i, 304.
- hydrazone of (ECKENROTH and KLEIN), A., i, 304.

- Acetylcarbamide and its aurochloride (HEILPERN), A., i, 603.
- Acetylmalic acid, barium, silver, and phenylhydrazine salts (RUEHMANN and TYLER), T., 534; P., 1896, 74.
- Acetylsuccinic acid (EMERY), A., i, 413, 414.
- Acetylsuccinic anhydride (EMERY), A., i, 413.
- Acetophenone, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1091, 1092, 1200, 1243.
- condensation of, with benzaldehyde (v. KOSTANECKI and ROSSBACH), A., i, 556.
- condensation of, with benzylideneacetophenone (v. KOSTANECKI and TAMBOE), A., i, 557.
- condensation of, with furfuraldehyde (KOSTANECKI and PODRAJANSKY), A., i, 688.
- condensation of, with salicylaldehyde and with bromosalicylaldehyde (KOSTANECKI), A., i, 240; (KOSTANECKI and OPPELT), A., i, 241.
- Acetophenone, cyan-, thermochemical data of (GUINCHANT), A., ii, 465.
- o*-nitro-, reduction of, by aluminium (WISLICIENUS), A., i, 298, 672.
- condensation of, with benzaldehyde (ENGLER and DORANT), A., i, 49.
- sodium derivative, molecular weight of (BECKMANN and SCHLIEBS), A., i, 124.
- Acetophenonehydrazone, action of formaldehyde on (WALKER), T., 1286.
- Acetophenonetetrahydrazone (THIELE and INGLE), A., i, 107.
- Acetophenyl-*m*-nitrobenzylidenehydrazone (WALTHER), A., i, 542.
- Acetophenyl-*p*-nitrobenzylidenehydrazone (WALTHER), A., i, 542.
- $\alpha$ -Acetophenylsemicarbazide (WIDMAN), A., i, 629.
- chloro- (WIDMAN), A., i, 629.
- Acetophenylthiocarbamide, action of acetic chloride on (DORAN), T., 343.
- action of ethylic chlorocarbonate on (DORAN), T., 343.
- Acetophthalylhydroxylamine. See Phthalylacetoxylamine.
- Acetopicolinic acid,  $\beta$ -*di*-chlor- (ZINCKE and WINZHEIMER), A., i, 500.
- $\beta$ -*tri*-chlor- (ZINCKE and WINZHEIMER), A., i, 500.
- Acetopiperidide, *tri*-chlor- (FRANCHIMONT and TAVERNE), A., i, 602.
- Acetotartaric- $\beta$ -naphthalide (GASSMANN), A., i, 487.
- Acetotetrahydro-3-naphthylamine, cyano- (BENEDICENTI), A., i, 488.
- Aceto-*o*-toluidide sodium ethoxide (COHEN and ARCHDEACON), T., 93; P., 1896, 8.
- sodium methoxide (COHEN and ARCHDEACON), T., 93; P., 1896, 8.
- Aceto-*p*-toluidide sodium methoxide (COHEN and ARCHDEACON), T., 93; P., 1896, 8.
- sodium methoxide (COHEN and ARCHDEACON), T., 93; P., 1896, 8.
- action of bromine on (VAUBEL), A., i, 157.
- Acetotrinitro-*m*-ethoxyphenylhydrazine, (PURGOTTI), A., i, 363.
- Acetoxime, brom- and iod- (SCHOLL and MATTHAIPOPOULOS), A., i, 520, 521.
- chlor-, and the action of nitric peroxide on it (SCHOLL and MATTHAIPOPOULOS), A., i, 520.
- Acetoxyacetyldihydrocarboxime (WALLACH), A., i, 571.
- 2-Acetoxybenzylideneacetone, 5-bromo-. See Acetic acid, 2-Hydroxybenzylideneacetone salt of, 5-bromo-.
- 4 : 1-Acetoxybromonaphthalene (REVERDIN and KAUFFMANN), A., i, 175.
- w*-Acetoxyeis- $\pi$ -camphanic acid (KIPPING), T., 949; P., 1896, 115.
- $\pi$ -Acetoxycamphoric anhydride (KIPPING), T., 940; P., 1896, 115.
- 1 : 4-Acetoxychloronaphthalene (REVERDIN and KAUFFMANN), A., i, 175.
- 5-Acetoxy-1 : 3-dimethylcyclohexene (KNOEVENAGEL), A., i, 287.
- 3 : 1 : 5-Acetoxydiphenyltriazole (WIDMAN), A., i, 630.
- 1'-Acetoxyindole-2'-carboxylic acid (REISSERT), A., i, 390.
- 1 : 2 : 4-Aceto-*m*-xylidide, brom- (VAUBEL), A., i, 646.
- 1 : 3 : 4-Aceto-xylidide, 2 : 5-*d*-nitro- (KLAGES), A., i, 291.
- Acetoxymaleic anhydride (MICHAEL and BUCHER), A., i, 85.
- from oxalacetic acid (MICHAEL and BUCHER), A., i, 599.
- 5-Acetoxy-1-methyl-3-*isobutyl*cyclohexene (KNOEVENAGEL), A., i, 287.
- 3-Acetoxy-1 : 4-methylcyclohexene (KNOEVENAGEL), A., i, 287.
- 5-Acetoxy-1-methyl-3-hexylcyclohexene (KNOEVENAGEL), A., i, 287.
- 5-Acetoxy-1-methyl-3-*isopropyl*cyclohexene (KNOEVENAGEL), A., i, 287.
- Acetoxoxamide, and action of acetic anhydride on (SCHIFF and MONSACCHI), A., i, 209.

- Acetoxy-oxydimethylnaphthalene (CANNIZZARO and ANDREOCCI), A., i, 489.
- 3 : 1 : 5-Acetoxyphenylisopropyltriazole (WIDMAN), A., i, 630.
- Acetoxypinole dibromide (WALLACH), A., i, 102.
- Acetoxyquinacridone and its *trinitro*-derivative (NIEMENTOWSKI), A., i, 261.
- Acetoxytetramethyldehydrohæmatoxylin (HERZIG), A., i, 379.
- Acetoxytrimethyldehydrobrazilin (HERZIG), A., i, 379.
- Acetoxytrimethylsuccinic anhydride and the corresponding anil, *p*-tolil, and *p*-tolilic acid (AUWERS and v. CAMPENHAUSEN), A., i, 525.
- Acetyl derivatives of aromatic hydrocarbons, preparation of (MEYER and BAUM), A., i, 288; (MEYER), A., i, 433.
- Acetyl groups, estimation of (MEYER), A., ii, 226.
- Acetylacetone, refraction equivalents at different temperatures of (PERKIN), P., 1895, 199; T., 2. thermochemical data of (GUINCHANT), A., ii, 12.
- Acetylacetone, nitroso- (ZANETTI), A., i, 249.
- sodio-, action of amylenic bromide on (BARBIER and BOUVEAULT), A., i, 638.
- dl*thio, action of carbonyl chloride on (VAILLANT), A., i, 591.
- Acetylacrylic acid, ethylic salt, action of ethylic sodiomalonate on (EMERY), A., i, 414.
- Acetylalbumose (SCHRÖTTER), A., i, 515.
- Acetylallophanic acid, ethylic salt, action of ammonia on (OSTROGOVICH), A., i, 530.
- Acetylammoresinotannol (Luz), A., i, 249.
- Acetylaurins (HERZIG), A., i, 486.
- Acetylbebirine, formation and properties of (SCHOLTZ), A., i, 710.
- Acetylbenzantialdoxime. See Acetic acid, benzantialdoxime salt of.
- Acetylbenzyl methyl ketone, oxime of (KOLB), A., i, 577.
- Acetylbenzylrosinduline chloride (KEHRMANN and TIKHVINSKY), A., i, 511.
- Acetylbiuret (OSTROGOVICH), A., i, 530.
- Acetylbisnitrosodimethylnaphthalene (CANNIZZARO and ANDREOCCI), A., i, 489.
- Acetyl- $\pi$ -bromo- $\alpha$ -isinitrocamphor (LAPWORTH and KIPPING), T., 320.
- u*-Acetylbutylic alcohol, anhydride of, and its phenylhydrazone, oxime, and benzoate (LIEP), A., i, 317.
- $\alpha$ -Acetyl- $\alpha$ -*iso*-butylsuccinic acid, ethylic salt, and the action of sulphuric acid on (AUWERS and SCHIFFER), A., i, 644.
- $\gamma$ -Acetylbutyric acid (BENTLEY and PERKIN), T., 1511.
- action of nitric acid on (BENTLEY and PERKIN), T., 1512; P., 1896, 169.
- oxime of (BENTLEY and PERKIN), T., 1512; P., 1896, 169.
- semicarbazone of (BENTLEY and PERKIN), T., 1513; P., 1896, 169.
- Acetylcallitolic acid (BALZER), A., i, 494.
- Acetylcannabinol (WOOD, SPIVEY, and EASTERFIELD), T., 545; P., 1896, 76.
- Acetylcarbazole, *dibrom*- (MAZZARA and LEONARDI), A., i, 393.
- chlorobrom- (LAMBERTI-ZANARDI), A., i, 304.
- chloronitro- (LAMBERTI-ZANARDI), A., i, 651.
- Acetylcardol ((SPIEGEL and DOBBIN), A., i, 653.
- Acetylchironol (BAUR), A., i, 57.
- Acetylcyanethenylamidoxime (SCHMIDTMANN), A., i, 458.
- Acetyldibenzylhydrazine (CURTIUS and QUEDEFELDT), A., i, 29.
- Acetyldicyanacetic acid, methylic and ethylic salts (GUINCHANT), A., i, 594.
- Acetyldiduroquinone (RÜGHEIMER and HANKEL), A., i, 688.
- Acetyldihydrodiduroquinone (RÜGHEIMER and HANKEL), A., i, 688.
- 2-Acetyl-1 : 1'-dihydroxy-3 : 3'-dimethylnaphthalene, behaviour of, towards sulphuric acid (COLLIE and WILLSMORE), T., 298; P., 1896, 47.
- Acetyl-1 : 2-dihydroxyflavone (FRIEDLÄNDER and RUDT), A., i, 440.
- 6-Acetyldurene (MEYER), A., i, 433.
- 6-Acetylsodurene (BAUM and MEYER), A., i, 228.
- behaviour towards hydroxylamine (BAUM), A., i, 222.
- non-formation of an oxime or hydrazone by (MEYER), A., i, 433.
- Acetylene, synthesis from carbon and hydrogen of (BONE and JERDAN), P., 1896, 62.
- formation of, from lithium carbide (MOISSAN), A., ii, 419.
- luminosity of hydrocarbon flames due to (LEWES), T., 226; P., 1896, 1.
- as an illuminating agent (TROUVÉ), A., i, 633.

- Acetylene as a photometric unit (VIOLE), A., ii, 347.  
 electrolytic conductivity of aqueous solutions of (JONES and ALLEN), A., ii, 462.  
 temperature of the flame of (LEWES), A., ii, 141.  
 decomposition of, by shock (MAQUENNE), A., ii, 87.  
 oxidation of, by palladised copper oxide (CAMPBELL), A., ii, 171.  
 limited combustion of, with air and oxygen (LE CHATELIER), A., i, 271.  
 explosive mixtures of air and (CLOWES), P., 1896, 143.  
 action of water on (DESGREZ), A., i, 2.  
 action of, on iron, nickel, and cobalt (MOISSAN and MOUREU), A., i, 585.  
 physiological action of (ROSEMANN), A., ii, 492.  
 poisonous action of (GRÉHANT, BERTHELOT, MOISSAN), A., ii, 200.  
 action of, on animals and on blood (BROCINER), A., ii, 264.  
 estimation of, in air (CLOWES), P., 1896, 144.  
 Acetylene, diiod-, action of light or heat on (MEYER and PEMSEL), A., i, 517.  
 Acetylenedicarboxylic acid, action of water on (DESGREZ), A., i, 2.  
 ethylic salt, action of ethylic iodide and zinc on (MICHAEL), A., i, 597.  
 conversion into ethylic *as* diethoxy-succinate, ethylic ethoxymaleate (MICHAEL and BUCHNER), A., i, 599.  
 Acetylfluorescein ethyl ether (quinoidal) (HERZIG and MEYER), A., i, 237.  
 Acetyl-3-fluoresceincarboxylic acid (GRAEBE and LEONHARDT), A., i, 438.  
 Acetylglutaric acid, ethylic salt, and hydrolysis of (BENTLEY and PERKIN), T., 1511; P., 1896, 169.  
 $\beta$ -Acetylglutaric acid, identity of, with isopropylidenesuccinic acid (EMERY), A., i, 414.  
 $\beta$ -Acetylglutaric anhydride (EMERY), A., i, 413.  
 Acetyl-1 : 4 : 3-hydroxyquinolinequinone (ZINCKE and WINZHEIMER), A., i, 499.  
 Acetylia. See Diethylenediamine.  
 1'-Acetylisoindazole (ATWERS and EWING), A., i, 504.  
 Acetylin dileucin (SCHUNCK and MARCHLEWSKI), A., i, 96.  
 1'-Acetylin dophenazine, 1 : 3-dibromo- (SCHUNCK and MARCHLEWSKI), A., i, 236.  
 Acetylisatin, condensation of, with *o*-phenylenediamine (SCHUNCK and MARCHLEWSKI), A., i, 235.  
 dioxime of (SCHUNCK and MARCHLEWSKI), A., i, 236.  
 Acetyl-*d*-lactic acid, rotatory power of the ethylic salt of (PURDIE and WILLIAMSON), T., 828; P., 1896, 97.  
 Acetylalactylacetamide (COLSON), A., i, 283, 284.  
 Acetylalutolin triethyl ether (PERKIN), T., 801; P., 1896, 105.  
 Acetylmalic acid, methylic salt, specific rotation of (PURDIE and WILLIAMSON), T., 824; P., 1896, 97.  
 rotatory power of the methylic, ethylic, propylic, and *iso*-butyric salts of (WALDEN), A., ii, 136.  
 Acetylmalic acid, brom-, rotatory power of the methylic, ethylic, propylic, and *isobutyric* salts of (WALDEN), A., ii, 136.  
 chlor-, rotatory power of the methylic, ethylic, and propylic salts of (WALDEN), A., ii, 136.  
 Acetylmalonic acid, thermochemical data of the methylic salt of (GUINCHANT), A., ii, 12.  
 Acetylmandelic acid, rotatory power of (WALDEN), A., ii, 138.  
 methylic salt, rotatory power of (WALDEN), A., ii, 138.  
 Acetylmesitylene, reduction of (MEYER and SOHN), A., i, 434.  
 behaviour towards phenylhydrazine and nitric acid (BAUM), A., i, 222.  
 Acetylmetasantonie acid (FRANCESCONI), A., i, 378.  
 Acetylmethylallyldithiourazole (FREUND and HEILBRUN), A., i, 415.  
 1-Acetyl-3-methylindophenazine (SCHUNCK and MARCHLEWSKI), A., i, 236.  
 Acetylmorin tetramethyl ether (PERKIN and BABLICH), T., 797; P., 1896, 106.  
 Acetylnaphthylphenylcarbazole (SCHÖPFF), A., i, 244.  
 Acetylnaphthylphenylcarbazolecarboxylic acid (SCHÖPFF), A., i, 243.  
 Acetylpentamethylbenzene, behaviour of, towards hydroxylamine (BAUM), A., i, 222.  
 Acetylpeonol, brom-. See Acetic acid, peonol salt of, bromo-.  
 Acetylphenimeisatin, amino- (SCHUNCK and MARCHLEWSKI), A., i, 236.

2-Acetyl-3-phenylindazole (AUWERS and SANDHEIMER), A., i, 505.

1' : 3'-Acetylphenylisindazole and its acetate (AUWERS and EWING), A., i, 504.

Acetylphenylmalic acid and its salts (RUEHMANN and WOLFF), T., 1385 ; P., 1896, 166.

Acetylphenylpyrazolidine (HARRIES and LOTH), A., i, 321.

2 : 1 : 3-Acetylphenylpyrazolone (HARRIES and LOTH), A., i, 321.

Acetylphorone, behaviour of, towards phosphoric anhydride (KERP), A., i, 448.

$\beta$ -Acetylpropionic acid. See Levulinic acid.

1 : 4-Acetylisopropylcyclopentan-2-one (*acetylisopropylketopentamethylene*), copper derivative and dioxime of (VON BAEYER), A., i, 248.

Acetylpyridineacetoxime and its aurochloride and platinochloride (KNUTTEL), A., i, 497.

Acetylsorhamnetin (PERKIN and HUMMEL), T., 1569 ; P., 1896, 186.

Acetylrosinduline (KEHRMANN and HERTZ), A., i, 509.

Acetylsagaresinotannol (HOHENADEL), A., i, 58.

Acetylsandaracolic acid (BALZER), A., i, 493.

Acetylsantonin acid (FRANCESCONI), A., i, 377.

Acetylscopoleïne (MERCK), A., i, 65.

Acetyltetrahydrocarvylamine (WALLACH and HERBIG), A., i, 101.

Acetyltetrahydroquinine (LIPPMANN and FLEISSNER), A., i, 63.

Acetyltricarballic acids, action of hydrochloric acid on (EMERY), A., i, 413.

Acetyltrimethylhaematoxylin, acetyl derivative of (HERZIG), A., i, 379.

Acetyltropeine (MERCK), A., i, 65.

Acetylurethane, action of carbamide on (OSTROGOVICH), A., i, 262.

Acetylxylin (BADER), A., i, 335.

Acetyl. See further Diacetyl, Triacetyl, &c.

Achroodextrin. See under Dextrin.

Achyranthes, red dye of (WEIGERT), A., i, 388.

Acid  $C_7H_3H_3O_5$ , from benzeneazimidole (ZINCKE), A., i, 430.

$C_6H_{10}O_4$ , from campholenic acid and its anhydride, ethylic salt, and anilido- and phenylimido-derivatives (BÉHAL), A., i, 55.

$C_7H_{12}O_4$ , from oxidation of campholenic acid (BÉHAL), A., i, 55, 179.

VOL. LXX. ii.

Acid  $C_8H_7NO_3$ , obtained by the action of chloroform and potash on *m*-aminobenzoic acid, and its barium salt (ELLIOTT), T., 1515 ; P., 1896, 171.

$C_8H_{10}O_3$ , from ethylic sodioacetate and  $\beta$ -bromolevulinate (EMERY), A., i, 638.

$C_8H_{12}O_4$ , from oxidation of pinonic acid (WAGNER and ERTSCHIKOWSKY), A., i, 380.

$C_8H_{12}O_5$ , from oxidation of camphoric acid : constitution of (BALBIANO), A., i, 493.

$C_8H_{14}O_4$ , from oxidation of *isophorone* (KERP), A., i, 448.

$C_9H_{11}O_3$ , from potassium *alloethylic* camphorate : its phenylhydrazone (WALKER and HENDERSON), T., 755 ; P., 1896, 110.

$C_{10}H_{16}O_3$ , from  $\alpha$ -bromocampholide, barium salt (FORSTER), T., 51.

$C_{10}H_{16}O_3$ , from oxidation of hydrocarbon arising from pinene tetrabromide (TILDEN and NICHOLLS), P., 1896, 139.

$C_{10}H_{15}O_4$ , from dibromocampholide : its barium salt, *dibromo*-derivative (FORSTER), T., 44 ; P., 1895, 208.

$C_{10}H_{15}O_6$ , from bromocamphorenic acid, and its silver salt (FORSTER), T., 49 ; P., 1895, 208.

$C_{10}H_{18}O_3$ , from campholide : its barium salt (FORSTER), T., 57 ; P., 1895, 209.

$C_{10}H_{19}NO_4$ , from nitromenthone (KONOVALOFF), A., i, 177.

$C_{11}H_6Br_3O_6$ , from 3 : 1'-dibromo-1 : 2 : 3'-naphthaquinonecarboxylic acid (ZINCKE), A., i, 308.

$C_{15}H_{16}S_6O_8$ , from hydrolysis of thiorufic acid (EMMERLING), A., i, 127.

$C_{15}H_{20}O_2$ , from camphoric anhydride and benzene ; and its methylic and ethylic salts, anhydride, amide, phenylhydrazide (BUKKER), A., i, 179.

$C_{18}H_{16}ClIO_4$ , from phenyliodohydroacrylic acid (ERLENMEYER), A., i, 303.

$C_{22}H_{15}O_4N$  or  $C_{24}H_{15}O_6N$ , from ammonium 1 : 4' - naphthalenedicarboxylate : its silver, calcium, barium salts, and amide (MORO), A., i, 568.

$C_{23}H_{22}N_2O_3$ , formed from benzylidene-*p*-toluidine by action of alcoholic potassium cyanide : its anhydride and nitrile (MILLER and PLÖCHL), A., i, 609, 610.

$C_{26}H_{18}O_2$ , from tetraphenylenepinacolo-

- lin with alcoholic potash (KLINGER and LONNES), A., i, 691.
- Acid  $C_{26}H_{18}O_3$ , from acid  $C_{26}H_{18}O_2$  on oxidation (KLINGER and LONNES), A., i, 691.
- $C_{27}H_{20}O_3$ , from benzilic acid (KLINGER and LONNES), A., i, 375.
- $C_{40}H_{30}O_4$ , and its potassium and methylic salts (KLINGER and LONNES), A., i, 374.
- Acid, amount of, produced during germination (CLAUDEL and CROCHETELLE), A., ii, 443.
- Acid, amido-, obtained in the preparation of 3-sulphamidobenzamide, 5-bromo- (BOETTINGER), A., i, 438.
- Acid chlorides, general method for the preparation of (COLSON), A., i, 282.
- action of zinc fluoride on (MESLANS and GIRARDET), A., i, 346.
- Acids, action of, on human metabolism (DUNLOP), A., ii, 484.
- identification and isolation of, in plants (LINDET), A., ii, 539.
- Acids, amido-, substituted, preparation of, from ethylic amidooacetate hydrochloride, anhydrous sodium carbonate, and an acid anhydride (RADENHAUSEN), A., i, 137.
- Acids, aromatic etherification of (MEYER), A., i, 170.
- Acids, dicarboxylic,  $C_7H_{12}O_4$ , general review of (AUWERS), A., i, 639.
- Acids, fatty, from seeds from I'Sano (HÉBERT), A., i, 635.
- in the oil from capsicum seeds (VON BITTÓ), A., ii, 209.
- products of electrolysis of (HAMONET), A., i, 664.
- monocarboxylic, electrolytic synthesis of (VON MILLER and HOFER), A., i, 10, 11.
- volatility of, laws deduced from (RICHMOND), A., ii, 280.
- behaviour of alkali salts of, with water (KRAFFT and WIGLOW), A., i, 80.
- compounds of, with sulphur (HENRIQUES), A., i, 204.
- compounds of, with cholesterol in blood (HÜRTLE), A., ii, 485.
- separation of solid and liquid (DE KONINGH), A., ii, 226.
- Acids, insoluble, estimation of, in butter (BEAL), A., ii, 129.
- Acids, volatile, estimation of, in butter (BEAL), A., ii, 129.
- estimation of, in spirits, &c. (DUCLAUX), A., ii, 504.
- Acids,  $\alpha$ -hydroxy-, action of chloral on (EDELEANU and ZAHARIA), A., i, 348.
- Acids, inorganic and organic, poisonous effect of, on algæ and infusoria (BOKORNY), A., ii, 669.
- Acids, mercapto-, action of haloid fatty acids on (LOVÉN), A., i, 412, 413.
- Acids of the acetylene series, action of acetic anhydride on (MICHAEL and BUCHER), A., i, 85.
- Acids, secondary  $\beta$ -hydroxy-, formation of (REFORMATSKY), A., i, 128.
- Acids, unsaturated  $\gamma\delta$ , action of sodium hydroxide on (SPENZER), A., i, 127, 128.
- preparation of bromine additive compounds of (MICHAEL), A., i, 131.
- Acids, vegetable, action of, on insoluble phosphates in presence of nitrates (LOGES), A., ii, 621.
- Acids (or their salts or derivatives).
- See also:—
- Acetic acid.
- Acetic acid, cyan-.
- Acetic- $\alpha$ -sulphonepropionic acid.
- Acetic- $\beta$ -sulphonepropionic acid.
- Acetoacetic acid.
- Acetoacetic acid, cyan-.
- Acetochloropyridinecarboxylic acid, dichlor-.
- Acetomenthoximic acid.
- Acetonedicarboxylic acid.
- Acetonylmalic acid.
- Acetonylsuccinic acid.
- Acetopicolinic acid.
- Acetoxycamphanic acid.
- Acetylallophanic acid.
- p*-Acetylbutyric acid.
- Acetylcallitolic acid.
- Acetyldicyanacetic acid.
- Acetylenedicarboxylic acid.
- Acetyl-*d*-lactic acid.
- Acetylmalic acid.
- Acetylmalonic acid.
- Acetylmandelic acid.
- Acetylphenylmalic acid.
- Acetylsandaracolic acid.
- Acetylsantonin acids.
- Aconitic acid.
- Acrylic acid.
- Allylacetic acid.
- Allylmalonic acid.
- Allylpropanetricarboxylic acid.
- Amylacetic acid.
- 3'-Amyl-2'-hexylquinoline-1-carboxylic acid.
- iso*-Amylmalonic acid.
- Amylsulphamic acid.
- Anemonin.
- Anhydrazetonebenzilcarboxylic acid.
- Anhydrocamphoric acid.
- Anhydrocamphoronic acid.



## Acids. See :—

Anhydridibenzylacetoacetic acid.  
 Anhydrotetronic acid.  
 Anilidobenzoic acid.  
 $\beta$ -Anilidopropionic acid.  
 Aniline-*o*-sulphonic acid.  
 Aniline-*m*-sulphonic acid.  
 Anisic acid.  
 Anisoilphthaloylic acid.  
 Anisoylcarboxylic acid.  
 Anisoylglxylic acid.  
 Anisuric acid.  
 Anthraquinonecarboxylic acid.  
 Apioleketonic acid.  
 Apiolic acid.  
 Apophyllenic acid.  
 Arabonic acid.  
 Arachidic acid.  
 Aristidinic acid.  
 Aristinic acid.  
 Aristolic acid.  
 Aristolochic acid.  
 Aspartic acid.  
 Atranoric acid.  
 Azelaic acid.  
 Azimidobenzoic acid.  
 Azimidoethylenedicarboxylic acid.  
 Azimido-*m*-uramidobenzoic acid.  
 Azimido-*p*-uramidobenzoic acid.  
 Azinemetanedisulphonic acid.  
 Azoacetic acid.  
 Azurilic acid.  
 Behenoxylic acid.  
 Benzaldoximidoacetic acid.  
*iso*-Benzaldoximidoacetic acid.  
 Benamidodisulphonic acid.  
 Benzeneazocyanacetic acid.  
 Benzeneazosalicylic acid.  
 Benzenediazosulphonic acid.  
 Benzenesulphinic acid.  
 Benzenesulphonic acid.  
 Benzilic acid.  
 Benzoic acid.  
 Benzoindicarboxylic acid.  
 Benzothiazolecarboxylic acid.  
 Benzoylacetohydroxamic acid.  
 Benzoylacetacetic acid.  
 Benzoylallopnic acid.  
 Benzoylbenzoic acid.  
*p*-Benzoylbenzoic acid.  
*p*-Benzoyl-*p*-benzoylbenzoic acid.  
 Benzoyl-*o*-ethoxybenzoic acid.  
 Benzoylethylnitrolic acid.  
 Benzoylglutaric acid.  
 Benzoylglyceric acid.  
 Benzoylhydrazonoacetoacetic acid.  
 Benzoylphthalic acid.  
 Benzoylisophthalic acid.  
 Benzoylpropionic acid.  
 Benzoylsalicylic acid.  
 Benzoylsandaracolic acid.  
 Benzoyl-*d*-santonous acid.

## Acids. See :—

Benzoylsantonous acid, racemic.  
 Benzoyltetronic acid.  
 Benzoyltoluic acids.  
 $\alpha$ -Benzoyltricarballic acid.  
 $\beta$ -Benzylterotonic acid.  
 $\beta$ -Benzyl-*iso*-crotonic acid.  
 Benzylidesmotroposantonous acid.  
 Benzylideneacetoacetic acid.  
 Benzylideneaminophenylimido- $\beta$ -butyric acid.  
 Benzylidenehydrazidoisobutyric acid.  
 Benzylidenehydrazinecarboxylic acid.  
 Benzylmalonic acid.  
 $\beta$ -Benzylloxycrotonic acid.  
*l*-Benzylsantonous acid.  
 Benzyl-*o*-sulphamidobenzoic acid.  
 Brassylic acid.  
*cyclo*-Butane-1 : 3-dioxylic acid.  
 $\alpha\gamma\gamma$ -Butanetricarboxylic acid.  
*iso*-Butylanhydridibenzilacetoacetic acid.  
 Butyric acid.  
*iso*-Butyric acid.  
 Butyrophenone-*o*-carboxylic acid.  
 Butyroylmalic acid.  
*iso*-Butyroylmalic acid.  
*iso*-Butylmalonic acid.  
 Callitrolic acid.  
 Camphanic acid.  
*cis*- $\pi$ -Camphanic acid.  
 Camphenephosphonic acid.  
 Camphenesulphonic acid.  
 Camphenylic acid.  
 Camphoic acid.  
 Campholenic acid.  
 Campholic acid.  
*allo*-Campholytic acid.  
*cis*-Campholytic acid.  
 Camphopyranilic acid.  
 Camphopyric acid.  
 Camphoramic acid.  
 Camphorenic acid.  
 Camphoric acid.  
 Camphoronamic acid.  
 Camphoronic acid.  
*iso*-Camphoronic acid.  
 Camphoronimic acid.  
 Camphorsulphonic acid.  
 Camphotricarboxylic acid.  
 Caproic acid.  
 Carbethoxyacetohydroxamic acid.  
 Carbethoxyethylnitrolic acid.  
 4-Carboxamidobenzoic acid, 3-amino.  
 Carboxyacetonylsuccinic acid.  
 Carboxyethylthiocarbamic acid.  
 Carboxyphenylmalonic acid.  
 Cardenic acid.  
 Cardic acid.  
 Cardolic acid.  
 Carnaubic acid.  
 Carnic acid.

## Acids. See:—

Caronebisnitrosylic acid.  
 Cerotic acid.  
 Chironolic acid.  
 Chloralic acid.  
*d*-Choleic acid.  
 Cholic acid.  
 Chromoxalic acid.  
 Cincholeuonic acid.  
 Cinchomeronic acid.  
*iso*-Cinnamenylmandelic acid.  
 Cinnamic acid.  
 Citraconic acid.  
 Citradibromopyrotartranilic acid.  
 Citrazinic acid.  
 Citric acid.  
 Citronellie acid.  
 Columbic acid.  
 Crotonic acid.  
*iso*-Crotonic acid.  
*iso*-Coumarincarboxylic acid.  
 Cumenesulphonic acid.  
 Cuminic acid.  
 Cyanacetic acid.  
 Cyanuric acid.  
*iso*-Cyanuric acid.  
 Cymenecarboxylic acid.  
 Cymenesulphonic acid.  
 Cymylglyoxylic acid.  
 Decoic acid.  
 Deoxyamalic acid.  
 Deoxycholeic acid.  
 Desmotropodisantonous acid.  
 Desmotroposantonous acid.  
 Desoxalic acid.  
 Desylacetic acid.  
 Desyleneacetic acid.  
 Diacetoacetic acid.  
 Diacetyl glyceric acid.  
 Diacetyl tartaric acid.  
 Diallylacetic acid.  
 Dialuric acid.  
 Diaminobenzenesulphonic acid.  
 Diazoacetic acid.  
 Diazoaminosulphanilic acid.  
 Diazobenzenephnylhydrazonemethanedisulphonic acid.  
*p*-Diazobenzenesulphonic acid.  
*iso*-Diazobenzenesulphonic acid.  
 Diazomethanedisulphonic acid.  
 Diazoniumanthranilic acid.  
 Diazophenolcarboxylic acid.  
 Diazophenolsulphonic acid.  
 Diazosalicylic acid.  
 Diazosulphanilic acid.  
 Dibenzamidodianilidosuccinic acid.  
 Dibenzenesulphonhydroxylamic acid.  
 Dibenzoylacetohydroxamic acid.  
 Dibenzoylbenzhydroxamic acid.  
 Dibenzoylbenzoic acid.  
 Dibenzoyl glyceric acid.  
 Dibenzoylphenylacetic acid.

## Acids. See:—

Dibenzoyltartaric acid.  
 Dibenzylacetic acid.  
 Dibenzylacetoacetic acid.  
 Dibenzyleyanoacetic acid.  
 Dibenzylmalonic acid.  
 Dicarboxyphenylglyoxylic acid.  
 Didehydroketocampholenic acid.  
 2:4-Diethoxybenzoic acid.  
 2:4-Diethoxybenzoylformic acid.  
 Diethoxybutyric acid.  
 2:4-Diethoxymandelic acid.  
 Diethoxyquinonedimalonic acid.  
 Diethoxysuccinic acid.  
 Diethylaminohexahydrotoluic acid.  
*exo*-Diethylamino-*o*-toluic acid.  
*exo*-Diethylamino-*p*-toluic acid.  
 Diethyl dicarboxylglutaric acid.  
*aa*-Diethylglutaric acid.  
 Diglycollic acid.  
 Dihydracrylic acid.  
 Dihydro-*cis*-campholytic acid.  
 Dihydrocuminic acid.  
 Dihydrophthalic acid.  
 Dihydro polystichic acid.  
 Dihydroxydipic acid.  
 Dihydroxydimethylglutaric acid.  
 Dihydroxydiphenylaminecarboxylic acid.  
 Dihydroxydiphenylglutaric acid.  
 Dihydroxymaleic acid.  
 Dihydroxynaphthalenesulphonic acid.  
 Dihydroxynaphthoic acid.  
 2:6-Dihydroxypyridine-4-carboxylic acid.  
 Dihydroxystearic acid.  
 Dihydroxysulphonaphthoic acid.  
 Dihydroxytetraphenylethanedicarboxylic acid.  
 Diketotetrahydroquinazoline-2-carboxylic acid.  
 Dilactylic acid.  
 2:3-Dimethoxybenzoic acid.  
 3:4-Dimethoxybenzoic acid.  
 Dimethoxytriphenylcarbinolcarboxylic acid.  
 Dimethoxytriphenylmethanecarboxylic acid.  
 Dimethylacrylic acid.  
 Dimethylanilinesulphonic acid.  
 Dimethylapionolcarboxylic acid.  
 Dimethylazammoniumbenzoic acid.  
 Dimethylbenzoic acid.  
 Dimethylbenzoylpropionic acid.  
 Dimethylcarballylic acid.  
*aa*-Dimethylcyanosuccinic acid.  
 Dimethylcyanuric acid.  
 Dimethylenegluconic acid.  
 Dimethylethylsuccinic acid.  
 Dimethylfumaric acid.  
*aa*-Dimethylglutaric acid.  
*αβ*-Dimethylglutaric acid.

## Acids. See :—

Dimethylmaleic acid.  
 Dimethylmalonic acid.  
 Dimethylnaphthaquinonepropionic acid.  
 Dimethyloctanoloic acid.  
 2 : 6-Dimethyloctane-3-onoic acid.  
 2 : 6-Dimethyl-3-oximidooctanoic acid.  
 2 : 6-Dimethylpiperidine-3 : 5-dicarboxylic acid.  
 Dimethylpropanetricarboxylic acid.  
 Dimethylpropylsuccinic acid.  
 Dimethylprotocatechuic acid.  
 1 : 4-Dimethylpyrazolone-4-carboxylic acid.  
 2 : 6-Dimethylpyridine-4 : 5-dicarboxylic acid.  
 Dimethylsuccinic acid.  
 Dimethyltetrahydroxypyronedicarboxylic acid.  
 Dimethyltricarballic acid.  
 Dimethyluric acid.  
 Dimethyluric acid.  
 $\alpha$ -Dinaphthalidocitric acid.  
 Diphenacetymalonic acid.  
 Diphenazone-*o*-hydroxycarboxylic acid.  
 Diphenoxyanilic acid.  
 Diphenoxydiethylacetic acid.  
 Diphenoxydiethylmalonic acid.  
 Diphenoxyethylmalonic acid.  
 Diphenoxyhexoic acid.  
 Diphenylacetyl glyceric acid.  
 Diphenylallophtanic acid.  
 $\beta$ -Diphenylbutyric acid.  
 Diphenylcarbazidedicarboxylic acid.  
 Diphenyldiphenylenepropionic acid.  
 Diphenyleneglycollic acid.  
 Diphenylfumaric acid.  
 Diphenylitaconic acid.  
 Diphenylmaleic acid.  
 Diphenylloxetonecarboxylic acid.  
 Diphenylparaconic acid.  
 Diphenylcyclopentenonylacetic acid.  
 3 : 6-Diphenylpyrazine-2 : 4-dicarboxylic acid.  
 Diphenylsuccinic acid.  
 Diphenyltetrahydroxypyronedicarboxylic acid.  
 Diphenylthiophthaluric acid.  
 Dipropionylglyceric acid.  
*Di-iso*-propyloxalic acid.  
*Di-iso*-propylsuccinic acid.  
*d*-Disantonous acid.  
*l*-Disantonous acid.  
 Disantonous acid, inactive.  
*o*-, *p*-, *m*-, Ditoluyltartaric acids.  
 Divaleryl tartaric acid.  
 Drimysic acid.  
 Durenecarboxylic acid.  
*iso*-Durenecarboxylic acid.  
 Elaidic acid.

## Acids. See :—

Ellagic acid.  
 Ethanetetracarboxylic acid.  
 Ethanetricarboxylic acid.  
 Etherthiorufic acid.  
 Ethoxycinnamic acid.  
 Ethoxycrotonic acid.  
 Ethoxyfumaric acid.  
 Ethoxyglutaconic acid.  
 Ethoxymaleic acid.  
 Ethoxyphenylmalonanamic acid.  
 Ethoxyphenyloxamic acid.  
 $\beta$ -Ethoxy- $\beta$ -phenylpropionic acid.  
 Ethoxyphenylsuccinamic acid.  
 Ethoxy- $\beta$ -resorcylic acid.  
 Ethoxysuccinic acid.  
 Ethylacetonedicarboxylic acid.  
 Ethylallylacetic acid.  
 Ethylanhydrodibenzilacetoacetic acid.  
 Ethylbenzoylpropionic acid.  
 Ethyl-desmotroposantonous acid.  
 Ethylenetetracarboxylic acid.  
 Ethylfumaric acid.  
 Ethylglycollic acid.  
 Ethylidenanthranilic acid.  
 Ethylenepropionic acid.  
 Ethylmalonic acid.  
 Ethylmesitylenesulphonic acid.  
*d*-Ethylsantonous acid.  
*l*-Ethylsantonous acid.  
 Ethylsantonous acid, racemic.  
 Ethylsuccinic acid.  
*p*-Ethyltoluenesulphonic acid.  
*p*-Ethyltoluene-*o*-sulphonic acid.  
 Ethyl- $\alpha$ -thiocarbonic acid.  
 Eugenolacetic acid.  
*iso*-Eugenolacetic acid.  
 Fluoresceincarboxylic acid.  
 Formazylformic acid.  
 Formazylsulphonic acid.  
 Formic acid.  
 Formyladipic acid.  
 Formylmalonuric acid.  
 Formylmaluric acid.  
 Formylloxaluric acid.  
 Formylphenylacetic acid.  
 Formylracemuric acid.  
 Formylsuccinuric acid.  
 Formylthymotic acid.  
 Fumaric acid.  
 Furazanedicarboxylic acid.  
 Furfurylidenemalononic acid.  
 $\beta$ -Galactoponic acid.  
 Galactonic acid.  
 Gallic acid.  
 Gallotannic acid.  
 Gentisic acid.  
 Geranic acid.  
 Glucic acid.  
*apo*-Glucic acid.  
 Glucoheptonic acid.  
 Glycocholic acid.

## Acids. See:—

Glycolhydracrylic acid.  
 Glycollic acid.  
 Glycuronic acid.  
 Glyoxylic acid (glyoxalic acid).  
 Gorgonic acid.  
 Granatic acid.  
 Gulonic acid.  
 Hæmatic acid.  
 Hæmatommenic acid.  
 Hæmatommic acid.  
 Helianthotannic acid.  
 Hemimellitic acid.  
 Hemipinamic acid.  
 Hendecenoic acid.  
 Hendecinoic acid (dehydrohendecenoic acid, undecolic acid).  
 Heptane-3 : 3 : 5 : 5-tetracarboxylic acid.  
 Heptane- $\alpha\gamma\gamma$ -tricarboxylic acid.  
 Heptinenic acids.  
 Heptoic acid.  
 Heptylideneanthranilic acid.  
 Hexahydrocinchonimeronic acid.  
 Hexahydrophenylaminoacetic acid.  
 Hexahydroquinolinic acid.  
 Hexahydro-*p*-toluic acid.  
 Hexahydro-*p*-xylic acid.  
 Hexanetricarboxylic acid.  
 3-*cyclo*-Hexanone-1-carboxylic acid.  
*iso*-Hexenoic acid.  
 Hexoic acid (caproic acid).  
 Hippuric acid.  
 Homoaspartic acid.  
 Homopiperonylic acid.  
 Homopiperonyloxamic acid.  
 Homoterpenoylformic acid.  
 Homoterpenylic acid.  
 Homotropinic acid.  
 Hydantoic acid.  
 Hydrazinoacetic acid.  
 Hydrazinobutyric acid.  
 Hydrazinoisobutyric acid.  
 Hydrazinocarboxylic acid.  
 Hydrazinopropionic acid.  
 Hydrazinovaleric acid.  
 Hydrazonophenylglyoxylic acid.  
 Hydrocarbostyryl-3'-carboxylic acid  
 Hydrocinnamic acid.  
 Hydrocyanic acid (under Cyanogen).  
*o*-Hydroxybenzoic acid.  
*m*-Hydroxybenzoic acid.  
*p*-Hydroxybenzoic acid.  
 Hydroxycamphanic acid.  
 Hydroxycamphoric acid.  
 Hydroxycamphoronic acid.  
 Hydroxycamphocarboxylic acid.  
 Hydroxycamphotricarboxylic acid.  
 Hydroxydibromocamphorsulphonic acid.  
 Hydroxydimethoxycoumarincarboxylic acid.

## Acids. See:—

$\beta$ -Hydroxy- $\alpha$ -dimethylisohexoxic acid.  
 $\beta$ -Hydroxy- $\alpha$ -dimethyl- $\beta$ -isopropylpropionic acid.  
 $\alpha\beta\beta$ -Hydroxydiphenylbutyric acid.  
 $\gamma$ -Hydroxy- $\beta\gamma$ -diphenylbutyric acid.  
 2-Hydroxy-2 : 3-diphenylcyclopentenonylacetic acids.  
 Hydroxydisulphonaphthoic acid.  
 Hydroxyfumaric acid.  
 $\alpha\gamma$ -Hydroxyglutaric acid.  
 3-Hydroxycyclohexane-1-carboxylic acid.  
 $\beta$ -Hydroxyisohexoxic acid.  
 Hydroxylaminesuccinylhydroxamic acid.  
 Hydroxylaminoacetic acid.  
 Hydroxylauronic acid.  
 Hydroxymethanetrisulphonic acid.  
 $\beta$ -Hydroxymethyladipic acid.  
*p*-Hydroxy-*m*-methylbenzoic acid.  
 5 : 1-Hydroxymethyldihydropyridone-3 : 4-dicarboxylic acid.  
 Hydroxymethylenephénylacetic acid.  
 Hydroxynaphthalenesulphonic acid.  
 Hydroxynaphthoic acids.  
 Hydroxypentadecioic acid.  
 $\gamma$ -Hydroxy- $\beta$ -phenoxyethylbutyric acid.  
 Hydroxyphenylsuccinamic acid.  
 Hydroxypinic acid.  
 Hydroxyisopropylglutaric acid.  
 4-Hydroxy-1-quinolinesulphonic acid.  
 8-Hydroxytetrahydrocarvonebisnitrosylic acid.  
 $\beta$ -Hydroxytetramethylpropionic acid.  
*exo*-Hydroxy-*o*-toluic acid.  
 $\beta$ -Hydroxy- $\alpha\alpha\beta$ -trimethyladipic acid.  
 $\alpha$ -Hydroxytrimethylpropionic acid.  
 Hygric acid.  
 Imidocarbonic acid.  
 Indole-2'-carboxylic acids.  
 Indoxylglycuronic acid.  
 Isanic acid.  
 Isophthalic acid.  
 Itaconic acid.  
 Jalapic acid.  
 Jalapinic acid.  
*iso*-Ketocamphoric acid.  
 Ketoketoximebenenic acid.  
 Ketopinic acid.  
 $\alpha\gamma$ -Ketopyrhydrindenecarboxylic acid.  
 Ketostearic acid.  
 Lactic acid, *d*-, *l*-, and *i*.  
 Lactylglycollic acid.  
 Lactylhydracrylic acid.  
 Lanocerinic acid.  
 Lauranolic acid.  
 Lauric acid.  
 Lauronic acid.  
 Lauronolic acid.

Acids. See:—

Lepidotic acid.  
 Levulinic acid.  
 Linoleic acid.  
 Lithofellic acid.  
 Lysuric acid.  
 Lyxonic acid.  
 Maleic acid.  
 Malic acid.  
*l*-Malic acid.  
 Malonic acid.  
 Mandelic acid.  
 Mannonic acid.  
 Melissaic acid.  
 Menthoximic acid.  
 Mesaconic acid.  
 Mesitylenecarboxylic acid.  
 Mesitylenic acid.  
 Mesitylglyoxylic acid.  
 Mesityloxidoxalic acids.  
 Methanedisulphonic acid.  
 Methanesulphonopropionic acid.  
*α*-*o*-Methoxyacrylic acid.  
*β*-*o*-Methoxyacrylic acid.  
*m*-Methoxybenzoic acid.  
*o*-Methoxybenzoic acid.  
 Methoxyphenylcrotonic acid.  
 Methoxyphenylmalonic acid.  
 Methoxyphenylloxamic acid.  
*β*-Methoxy-*β*-phenylpropionic acid, iodo-.  
 Methoxyphenylsuccinamic acid.  
 Methylacetacetic acid.  
 Methylacetonedicarboxylic acid.  
 Methyladipic acids.  
 Methylallylsuccinic acid.  
*para*-Methylallylsuccinic acid.  
 Methylazimidobenzoic acid.  
 Methylbenzenedicarboxylic acid.  
 Methylbenzhydroximic acid.  
 Methylbenzoylpropionic acid.  
 Methylbutyloxamic acid.  
*α*-Methylbutyric acid.  
 Methyl-*β*-camphoramic acid.  
 Methylcarbocapro lactonic acid.  
*para*-Methylcarbocapro lactonic acid.  
 Methylcitraconic acid.  
 Methyldesmotroposantonous acid.  
 2-Methyldihydrofurfuran-3:4-dicarboxylic acid.  
 2-Methyldihydrofurfuran-3:4-dicarboxylic acid.  
 2-Methyldihydrofurfuran-3:4:5-tricarboxylic acid.  
*p*-Methyldihydroxybenzenesulphonic acid.  
 5-Methyl-1:3-diketocyclohexane-4:6-dicarboxylic acid.  
 Methyl diphenylitaconic acid.  
 Methylenecaffeic acid.  
 Methylenemucic acid.  
 Methylenesaccharic acid.

Acids. See:—

Methylenetartaric acid.  
 Methylethylacetic acid.  
 Methylethylacroleinanthranilic acid.  
 Methylethylbenzoylpropionic acid.  
 3'-Methyl-2'-ethylquinoline-1-carboxylic acid.  
 Methylethylsuccinic acid.  
 Methylglutaric acid.  
*h*-Methylhexahydrocinchonimeronic acid.  
 Methyliminophenylpropionic acid.  
 Methylitaconic acid.  
 Methylmalonic acid.  
 Methylmesaconic acid.  
 Methylnoropiananilidic acid.  
 Methylnoropianic acid.  
 Methylnoropian-*α*-naphthalidic acid.  
 Methylnoropian-*β*-naphthalidic acid.  
 Methylnoropian-*p*-toluidic acid.  
 3-Methylpentamethylene-1-carboxylic acid.  
 3-Methylpentamethylene-1:1-dicarboxylic acid.  
 3-Methylcyclopentanecarboxylic acid.  
 3-Methylcyclopentane-1:1-dicarboxylic acid.  
 Methylisophthalic acid.  
*β*-Methylpicolinic acid.  
*α*-Methylpimelic acid.  
*n*-Methylpiperidonic acid.  
 Methylpiperidinedicarboxylic acid.  
 Methylisopropyladipic acid.  
 Methylisopropylbutanetricarboxylic acid.  
 Methylisopropylcyclobutanedicarboxylic acid.  
 Methylisopropylethanetricarboxylic acid.  
 Methylisopropylsuccinic acid.  
 Methylisopropyltetramethylenedicarboxylic acid.  
 3-Methylpyrazoloneisobutyric acid.  
 Methylpyrazolonepropionic acid.  
 Methylquinolinecarboxylic acid (aniluvitonic acid).  
*d*-Methylsantonous acid.  
*l*-Methylsantonous acid.  
 Methylsantonous acid, racemic.  
 Methylterephthalic acid.  
 Methyltetrionic acid.  
*μ*-Methylthiazole-*α*-carboxylic acid.  
*β*-Methylthio-*ψ*-uric acid.  
 Methyluric acid.  
 Methyl-*iso*-valeric acid.  
 Mucic acid.  
 Myristic acid.  
 Naphthaleneazohydroxynaphthoic acid.  
 1:3'-Naphthylenediamine-4:1'-disulphonic acid.

## Acids. See:—

- 1 : 2-Naphthylenediamine-4-sulphonic acid.
- 1 : 3'-Naphthylenediamine-4-sulphonic acid.
- 1 : 4-Naphthylenediamine-2-sulphonic acid.
- Naphthalenedicarboxylic acid.
- Naphthalenedisulphonic acid.
- Naphthalene-3 : 1-disulphonic acid.
- Naphthalenesulphonic acid.
- $\alpha$ -Naphthalidopyrotartaric acid.
- Naphthalidosuccinic acid.
- $\alpha$ -Naphthalidopyruvic acid.
- $\beta$ -Naphthalidopyruvic acid.
- $\beta$ -Naphthalidosuccinic acid.
- 1 : 2 : 3-Naphthaquinonecarboxylic acid.
- 1 : 2 : 3'-Naphthaquinonecarboxylic acid.
- 1 : 2-Naphthaquinone-4-sulphonic acid.
- $\alpha$ -Naphthoic acid.
- $\beta$ -Naphthoic acid.
- Naphtholsulphonic acid.
- $\beta$ -Naphtho- $\alpha$ -methyleinchoninic acid.
- $\alpha$ -Naphthoylbenzoic acid.
- 2 : 1 : 4-Naphthylaminedisulphonic acid.
- 2 : 1-Naphthylaminesulphonic acid.
- $\alpha$ - and  $\beta$ -Naphthylglyoxylic acids.
- Naphthylphenylcarbazolecarboxylic acid.
- Naphthylsulphamic acid.
- Neurostearic acid.
- Nipecotinic acid.
- Nitramineacetic acid.
- iso*-Nitraminepropionic acid.
- Nonoic acid.
- Nopic acid.
- Norpic acid.
- Nucleic acid.
- Octoic acid.
- Octylquinoxalinedodecenoic acid.
- Enanthoic acid.
- Oleic acid.
- Onimatic acid.
- Opiananthranilic acid.
- Opianic acid.
- Opian- $\beta$ -naphthylamic acid.
- Oxalacetic acid.
- Oxalic acid.
- Oximamidoxalic acid.
- Oximidoacetic-acetic acid.
- Oximidopropionic-acetic acid.
- Oxymenthylic acid.
- Palmitic acid.
- Papaverinic acid.
- Parabanic acid.
- Pelargylaminoazelaic acid.
- Pelargylaminobrassylic acid.
- Pentamethenylacetic acid.

## Acids. See:—

- Pentamethenylmalonic acid.
- Pentamethylbenzoylpropionic acid.
- Pentamethylenetetraminebisdiazo-benzenesulphonic acid.
- Pentane- $\gamma\gamma\gamma_1$ -tetracarboxylic acid.
- Pentanetricarboxylic acid.
- Pentenoic acid.
- cyclo*-Pentylacetic acid.
- cyclo*-Pentylmalonic acid.
- Phenacilsuccinic acid.
- Phenacilsulphamidobenzoic acid.
- Phenaceturic acid.
- iso*-Phenethylmandelic acid.
- Phenetidylcrotonic acid.
- Phenoxazonecarboxylic acid.
- Phenoxybenzoic acid.
- $\alpha$ -Phenoxybutyric acid.
- $\gamma$ -Phenoxybutyric acid.
- $\gamma$ -Phenoxyethylmalonic acid.
- $\gamma$ -Phenoxyethyl- $\alpha$ -methylacetic acid.
- $\gamma$ -Phenoxyethyl- $\alpha$ -methylmalonic acid.
- Phenoxyethyl - *iso* - propylglutaric acid.
- Phenoxyethyl-*iso*-propylpropanetricarboxylic acid.
- Phenylacetic acid.
- $\psi$ -Phenylacetic acid.
- Phenylaminocinnamic acid.
- Phenyl- $\beta$ -aminocrotonic acid.
- $\alpha$ -Phenylamino- $\beta$ -phenylpropionic acid.
- Phenylazocarboxylic acid.
- Phenylbenzoic acids.
- 1 : 3 : 5-Phenylbenzylpyrazolone-4-carboxylic acid.
- Phenylbromacetic acid.
- Phenylbromomalonic acid.
- Phenylbutyric acid.
- Phenylethloracetic acid.
- Phenylcinnamic acid.
- Phenyldiazosulphonic acids.
- Phenyldihydrofurfurantricarboxylic acid.
- Phenylenacetic-propionic acid.
- Phenylethanetricarboxylic acid.
- Phenylformylacetic acid.
- Phenylglycollic acid.
- $\beta$ -Phenylhydracrylic acid.
- Phenylhydrazinedisulphonic acid.
- Phenylhydrazinoformic acid.
- $\beta$ -Phenylhydrazinopropionic acid.
- Phenylhydrazonemethanedisulphonic acid.
- Phenylhydroxylaminoacetic acid.
- Phenylimino- $\beta$ -butyric acid.
- Phenylmalonic acid.
- $\beta\beta$ -Phenylmethylhydrazinebenzylmalonic acid.
- Phenylmethylhydrazinesulphamic acid.

## Acids. See:—

Phenylmethylketotetrahydropyridazinecarboxylic acid.  
 1 : 3 : 5-Phenylmethylpyrazolone-4-carboxylic acid.  
 Phenylmethylureidoacetic acid.  
 Phenylpropionic acid.  
 Phenyl*iso*propylacetic acid.  
 1 : 1'-Phenylpropyltetrahydroazindonecarboxylic acid.  
*bis*-Phenylpyrazolonecarboxylic acid.  
 Phenylselenious acid.  
 Phenylsemicarbazidecarboxylic acid.  
 Phenyltartronic acid.  
 Phenylthiocarbazinic acid.  
 Phenyl-*p*-toluic acid.  
 Phenyltoluidoacetic acid.  
 Phenyl-*p*-tolylketonesulphonic acid.  
 Phenylureidobenzenesulphonic acid.  
 Phenylureidocinnamic acid.  
 Phenylureidophenylpropionic acid.  
 Phenyl-*m*-xylylketonesulphonic acid, *m*-nitro-.  
 Phosphoric acid.  
 Phthalaldehyde- $\alpha$ -naphthylamic acid.  
 Phthalaldehyde- $\beta$ -naphthylamic acid.  
 Phthalaldehyde-*p*-toluidinic acid.  
 Phthalaldehydic acid.  
 Phthalanilic acid.  
 Phthalic acid.  
*iso*-Phthalic acid.  
*iso*-Phthalylhydrazinoacetoacetic acid.  
 Phyllocyanic acid.  
 Phyllopurpuric acid.  
 Pinic acid.  
 Pinonic acid.  
 $\alpha$ -Pinonic acid.  
 Pinononic acid.  
 Pinoylformic acid.  
 Pipecolinic acid.  
 Piperazine-1 : 4-dicarboxylic acid.  
 $\beta$ -Piperidobenzylmalonic acid.  
 Piperylenedicarboxylic acid.  
 Polystichic acid.  
 Prehnylic acid.  
 Propanehexacarboxylic acid.  
 Propanetetracarboxylic acid.  
 Propanetricarboxylic acid.  
 Propargylpentacarboxylic acid.  
 Propiolic acid.  
 Propionic acid.  
 Propionylglycollic acid.  
 Propionylmalic acid.  
 Propionylmandelic acid.  
*iso*-Propylacetic acid.  
 Propylallylacetic acid.  
*iso*-Propylallylmalonic acid.  
*iso*-Propylbenzoylpropionic acid.  
*d*-*iso*-Propyl- $\beta$ -*isobutyl*acrylic acid.  
 $\alpha$ -*iso*-Propylcarboxyglutaric acid.  
*iso*-Propylethanetricarboxylic acid.

## Acids. See:—

*iso*-Propylglutaric acid.  
*iso*-Propylglutolactonic acid.  
*iso*-Propylheptanonic acid.  
 Propylideneacetic acid.  
 Propylideneanthranilic acid.  
 Propylmalonic acid.  
*iso*-Propylmalonic acid.  
 Propylmesitylenesulphonic acid.  
*iso*-Propylmethylbenzoylpropionic acid.  
 $\alpha$ -*iso*-Propylpropane-*aaa*<sup>1</sup>-tricarboxylic acid.  
*iso*-Propylsuccinic acid.  
 Proteic acid.  
 Proteic acid.  
 Protocatechuic acid.  
 Psoromic acid.  
 Pulegenic acid.  
 Pulegonedinitrosylic acid.  
 5-Pyrazolone-3-carboxylic acid.  
 Pyridine-3-sulphonic acid.  
 Pyrocinchonic acid.  
 Pyrolevulinic acid.  
 Pyruvic acid.  
 Quininic acid.  
 2'-Quinolylacetic acid.  
 2'-Quinolylacrylic acid.  
 2'-Quinolylglyceric acid.  
 2'-Quinolylpropionic acid.  
 Quinonedimalonic acid.  
 Racemic acid.  
 Ragic acid.  
 Rhamnohexonic acid.  
 Rhammonic acid.  
*iso*-Rhammonic acid.  
 Rhodinic acid.  
 Ricininic acid.  
 Saccharic acid.  
 Saccharinic acid.  
 Salicylic acid.  
 Sandaracolic acid.  
 Santalenic acid.  
 Santonic acid.  
*meta*-Santoniac acid.  
*l*-Santonous acid.  
*d*-Santonous acid.  
*l*-Santonous acid.  
 Santonous acid, racemic.  
*iso*-Santonous acid.  
 Scamminolic acid.  
 Scammonic acid.  
 Sebacic acid.  
 Selenodiacetic acid.  
 Sodiodesmotroposantonous acid.  
*l*-Sodiosantonous acid.  
 Sorbic acid.  
 Stearic acid.  
 Stearolic acid.  
 Stearoxyllic acid.  
 Stereocaulic acid.

## Acids. See:—

Stilbenedisulphonic acid.  
 Suberic acid.  
 Saccinamic acid.  
 Succinic acid.  
 Succinuric acid.  
 Succinylhydroxamic acid.  
*m*-Sulphamidobenzoic acid.  
*iso-p*-Sulphamidobenzoic acid.  
 Sulphaminebenzoic acid.  
*p*-Sulphanilic acid.  
 Sulphanilidobenzoic acid.  
 Sulphobenzoic acid.  
*m*-Sulphochlorobenzoic acid.  
 Sulphohydrazimethyleucarboxylic acid.  
 Sulphohydrazimethylenedisulphonic acid.  
 Sulphonaphthalenedicarboxylic acid.  
 Sulphonaphthylphosphinic acid.  
 $\alpha\beta$ -Sulphonedipropionic acid.  
 $\beta$ -Sulphonedipropionic acid.  
*o*-Sulpho-*p*-toluic acid.  
 Tannic acid.  
 Tariric acid.  
 Tartaric acid.  
*meso*-Tartaric acid.  
 Taurocholic acid.  
 Terebic acid.  
 Terephthalic acid.  
 Terephthalylazoimic acid.  
 Terephthalylhydrazidacetoacetic acid.  
 Terephthalylhydrazinic acid.  
 Terpenylic acid.  
 Tetraacetylsuccinylhydroxamic acid.  
 Tetrahydrocarvonebisnitrosylic acid.  
 Tetrahydrocumeic acid.  
 Tetrahydronaphthalene-1 : 4'-dicarboxylic acid.  
 Tetrahydro- $\beta$ -naphthyloxamic acid.  
 Tetrahydrophthalic acid.  
 Tetrahydroxydecoic acid.  
 2 : 4 : 2' : 4'-Tetrahydroxydiphenylacetic acid.  
 Tetrahydro-*p*-xylic acid.  
 Tetramethylacetonedicarboxylic acid.  
 Tetramethylbenzoic acids.  
 Tetramethylbenzoylpropionic acid.  
 Tetramethylene-1 : 3-dioxalylic acid.  
 Tetramethylsuccinic acid.  
 Tetrolic acid.  
 Tetric acid.  
 $\beta$ -Thiophenecarboxylic acid.  
 Thiorufic acid.  
 Thymic acid.  
 Thymotic acid.  
*p*-Toluenediazoamidobenzenesulphonic acid.  
*p*-Toluenesulphinic acid.  
*o*-, *m*-, and *p*-Toluic acids.  
 Toluidosulphobenzoic acid.  
*o*-, *p*-, and *m*-Toluric acids.

## Acids. See:—

$\psi$ -Tolylacetic acid.  
*p*-Tolylglyoxylic acid.  
 Tollysulphamic acid.  
 Triazoacetic acid.  
 1 : 2 : 3-Triazoledicarboxylic acid.  
 Tricarballic acid.  
 Trimethoxycoumarincarboxylic acid.  
 Trimellithic acid.  
 Trimethylacrylic acid.  
 Trimethylapionolic acid.  
 Trimethylbenzoic acid.  
 Trimethylbenzoylpropionic acid.  
 Trimethylcyanuric acid.  
 Trimethylglutaric acid.  
 2 : 4 : 6-Trimethylmandelic acid.  
 2 : 2 : 4-Trimethylpentan-3-olonic acid.  
 Trimethylpimelic acid.  
 Trimethylpropionic acid.  
 Trimethylpyruvic acid.  
 Tropic acid.  
 Tropic acids.  
 Turpethic acid.  
 Undecolic acid (hendecinoic acid).  
 Undecylenic acid (hendecenoic acid).  
 Undecylinenoic acid (hendecenoic acid).  
 Uramidobenzoic acids.  
 Uramidodibenzoic acids.  
 Urethaneacetic acid.  
 Uric acid.  
 $\psi$ -Uric acid,  $\beta$ -thio-.  
 Usnic acid.  
 Valeric acids.  
*iso*-Valerophenone-*o*-carboxylic acid.  
 Valeroylmandelic acid.  
 Vanillic acid.  
 Vanillinacetic acid.  
 Veratroylcarboxylic acid.  
 Veratroylglyoxylic acid.  
 Vinylpyridinecarboxylic acid.  
 Xylenesulphonic acid.  
*p*-Xylic acid.  
 Xylonic acid.  
 Xylosotrihydroxyglutaric acid.  
*m*-Xylylcarboxylic acid.  
 Xylylene-*exo*-diphthalamic acid.  
*m*-Xylylglyoxylic acid.  
 Acmite from Greenland (USSING), A., ii, 372.  
*Acokanthera schimperii*, glucoside from (FRASER and TILLIE), A., i, 386.  
 Aconine, acetyl and benzoyl derivatives of (DUNSTAN and CARR), P., 1895, 178.  
 $\psi$ -Aconine (FREUND and NIEDERHOFHEIM), A., i, 451.  
 Aconitic acid, occurrence of, in *Aconitum heterophyllum* (JOWETT), T., 1521; P., 1896, 158.



- Aconitic acid**, preparation from *Adonis vernalis* (OBLOFF), A., i, 136.
- Aconitine**, formula of (FREUND), A., i, 192.
- action of methylic alcohol on (DUNSTAN, TICKLE, and JACKSON), P., 1896, 159.
- estimation of (UMNEY), A., ii, 283.
- estimation of nitrogen in, by the absolute method (DUNSTAN and CARR), P., 1896, 48.
- ↓-Aconitine and its salts and hydrolysis (FREUND and NIEDERHOFHEIM), A., i, 451.
- Aconitum heterophyllum*, atisine, the alkaloid of, and aconitic acid in (JOWETT), T., 1518; P., 1896, 158.
- Acetaldehyde**, preparation of (HOFMANN LECTURE), T., 697.
- Acridine**, formation of (PICTET and HUBERT), A., i, 503.
- behaviour in sunlight (ORNDORFF and CAMERON), A., i, 176.
- Acrylhydrazone**, conversion into pyrazoline (CURTIUS), A., i, 339.
- Acrylic acid**, preparation of (HOFMANN LECTURE), T., 697.
- action of hydrazine on (CURTIUS), A., i, 339.
- Actinolite** from Ontario (HOFFMANN), A., ii, 257.
- Address**, congratulatory, to the Institute of France, P., 1895, 167; reply thereto, P., 1895, 199.
- to Lord Kelvin, P., 1896, 121.
- to Professor Stannizzaro, P., 1896, 120.
- of condolence on the death of Louis Pasteur, P., 1895, 197.
- presidential, of A. W. Vernon Harcourt, T., 563; P., 80.
- Adenine**, isolation of, from tea extract (KRÜGER), A., i, 450.
- compound of, with theobromine in tea (KRÜGER), A., i, 450.
- Adipic acid** from methyltropinic acid (WILLSTÄTTER), A., i, 267.
- crystallography of (CIAMICIAN and SILBER), A., i, 397.
- Adipinketone**, condensation of, with benzaldehyde (VORLÄNDER and HOBOMM), A., i, 603.
- Adonitol**, compound of, with acetone (SPEIER), A., i, 77.
- Ægryte**, artificial (BÄCKSTRÖM), A., ii, 115.
- Æschynite** from Norway (ERDMANN), A., ii, 570.
- Afzelia Cuanzensis*, the yellow dye of (KRISTELLI), A., ii, 208.
- Afinity constant**. See **Electrolytic conductivity**.
- Agaricaceæ*, amount of tannin in (NAUMANN), A., ii, 538.
- Agaricus muscarius*, amanitin, the red pigment of (GRIFFITHS), A., i, 653.
- Air**. See **Atmospheric air**.
- Air-bladder** of fishes, presence of argon in (SCHLOESING and RICHARD), A., ii, 436.
- Air-pump**, automatic mercury (KRAFFT and DYES), A., ii, 89.
- modification of von Babo's water-mercury (PRECHT), A., ii, 415.
- new form of mercury (WOOD), A., ii, 516.
- Ajuga reptans*, dyes of (WEIGERT), A., i, 388.
- α-Alanine** (α-aminopropionic acid, action of sodium hypochlorite on (DE CONINCK), A., i, 282.
- Albite** from Burma (BATER), A., ii, 311.
- from Crete (VIOLE), A., ii, 433.
- from France (FOUQUÉ), A., ii, 532.
- from Maryland (HILLEBRAND), A., ii, 40.
- from Russia (GLINKA), A., ii, 567.
- Albumin**, presence of an, in diastase (OSBORNE), A., i, 399.
- decomposition products of (HEDIN), A., i, 659.
- conversion of, into peptones (SCHRÖTTER), A., i, 112.
- relation of, to peptones and albumoses (SCHRÖTTER), A., i, 515.
- influence of, on initial rate of osmosis (LAZARUS-BARLOW), A., ii, 196.
- absorption of, in the small intestine (FRIEDLÄNDER), A., ii, 536.
- detection of, in urine (JOLLES), A., ii, 344.
- estimation of, in milk (VAN SLYKE), A., ii, 132.
- estimation of, in beer wort (SCHJERNING), A., ii, 631.
- Albumin**, active, connection of proteosomes with (LOEW), A., ii, 59.
- Albumin**, egg-, demonstration of presence of amido-groups in (CURTIUS), A., i, 337.
- reaction of and constitution of (SCHIFF), A., i, 632.
- new proteid from (BLUM), A., i, 659.
- Albumin**, serum-, presence of, in normal urine (MÖRNER), A., ii, 120.
- as a nutrient for the frog's heart (WHITE), A., ii, 437.
- Albumin**, vegetable-, constitution of (FLEURENT), A., i, 112.
- decomposition of, in *Lupinus luteus* (ZIEGENBEIN), A., ii, 265.
- occurrence of, in plants in spring and autumn (DAIKUHARA), A., ii, 55.

- Albuminates, estimation of, in cheese (STUTZER), A., ii, 684.
- Albumose, presence of, in urine during fever (KREHL and MATTHES), A., ii, 667.
- estimation of, in cheese (STUTZER), A., ii, 684.
- Albumoses, acetyl derivatives of (SCHRÖTTER), A., i, 515.
- absorption of, from the small intestine (FRIEDLÄNDER), A., ii, 536.
- precipitation of, by zinc sulphate (BÖMER), A., ii, 83.
- tests for (SCHRÖTTER), A., i, 112.
- Alcaptonuria, presence of homogentisic acid in (LIKHATSCHIEFF), A., ii, 492.
- Alcohol. See Ethylic alcohol.
- Alcohol,  $C_9H_{16}O$ , from reduction of camphorone (KEPF), A., i, 448.
- $C_9H_{18}O$ , from reduction of *iso*-phorone (KEPF), A., i, 447.
- $C_{10}H_{18}O$ , from reduction of ketone,  $C_{10}H_{16}O$  (WALLACH), A., i, 102.
- $C_{10}H_{20}O$ , product of hydrolysing wool fat (DARMSTAEDTER and LIFSCHÜTZ), A., i, 198.
- $C_{10}H_{20}O_2$ , from oil of valerian (OLIVIERO), A., i, 492.
- $C_{10}H_{20}O_4$ , from oxidation of  $\Delta^8(9)$ -menthene-1:2-diol (GINZBERG), A., i, 447.
- $C_{11}H_{22}O$ , product of hydrolysing wool fat (DARMSTAEDTER and LIFSCHÜTZ), A., i, 198.
- $C_{56}H_{96}O$ , in oil from Opoponax (BAUR), A., i, 57.
- secondary,  $C_8H_{15}OH$ , derived from dihydro-*cis*-campholytamide (NOYES), A., i, 696.
- Alcoholic hydrates, probable non-existence of (BARENDRECHT), A., i, 661.
- Alcohol-radicles, nature of (HOFMANN LECTURE), T., 696.
- haloids of, use of, as agents of substitution (HOFMANN LECTURE), T., 659.
- Alcohols, colour of, compared with that of water (SPRING), A., i, 644.
- poisonous effect of, on algæ and infusoria (BOKORNY, A., ii, 669.
- Alcohols of the terpene series, purification of (TIEMANN and KRÜGER), A., i, 382.
- extraction of, from essential oils (HALLER), A., i, 490.
- Alcohols, nitro-, formation of, by the action of formaldehyde on nitro-paraffins (HENRY), A., i, 4.
- Alcohols, polyhydric, compounds of, with formaldehyde (SCHULZ and TOLLENS), A., i, 115.
- Alcohols, action of acetone on (SPEIER), A., i, 77.
- Alcohols. See also:—
- Acenaphthyleneglycol.
  - n*-Acetobutylic alcohol.
  - Amylic alcohol.
  - iso*-Amylic alcohol.
  - Anilinomethylbutylcarbinol.
  - Anisic alcohol.
  - Benzhydrol.
  - Benzylic alcohol.
  - Bidiphenylene-ethyleneglycol.
  - Borneol.
  - iso*-Butylallylcarbinol.
  - iso*-Butylic alcohol.
  - Cardol.
  - Catechol.
  - Cholesterol.
  - Cinnamic alcohol.
  - Citronellol.
  - Crotonylic alcohol.
  - Cuminic alcohol.
  - Diallylethyl alcohol.
  - Diallyl*iso*propyl alcohol.
  - Dihydroxybutane, tertiary.
  - Dimethylethylcarbinol.
  - 2:5-Dimethylhexan-3-olone-4.
  - Dimethylpropylcarbinol.
  - Dimethyl*iso*propylcarbinol.
  - Diphenyltetramethyleneglycol.
  - Dipropylisopropyl alcohol.
  - Erythritol.
  - Ethyl alcohol.
  - Geraniol (lemonol).
  - Glycerol.
  - Hexylallylcarbinol.
  - Homalinalol.
  - Hydrobenzoïn.
  - iso*-Hydrobenzoïn.
  - Ketone alcohol,  $C_{10}H_{18}O_2$ , from menthene.
  - Koprosterol.
  - Lanolinic alcohol.
  - Licareol.
  - Licarhodol.
  - Linalol.
  - $\Delta^8(9)$ -Menthene-1:2-diol.
  - Mentheneglycol.
  - Methylallylhexenylcarbinol.
  - Methyl-*iso*-butylcarbinol.
  - Methylic alcohol.
  - Methylsalicylic alcohol.
  - $\beta$ -Methyltetramethyleneglycol.
  - Nonylic alcohol.
  - Octylic alcohol.
  - Pentaglycol.
  - Phenylhydroxybenzylcarbinol.
  - Pinacone.
  - Pinacone,  $C_{18}H_{34}O_2$ , from reduction of *iso*-pharone.
  - Pinacone,  $C_{18}H_{30}O_2$ , from reduction of camphorone.

Alcohols. See :—

Pinolglycol.  
Phloroglucinol.  
Propylalcohols.  
Pulegol.  
Quercitol.  
2'-Quinolylpropyl alcohol.  
Rhodinol.  
Sobreritritol.  
Sobrerol.  
Tetrahydrocarveol.  
Trihydroxymenthane.  
Trimethylenic glycol.  
2 : 2 : 4-Trimethylpentane-1 : 3-diol.  
Triphenylcarbinol.  
Triphenylvinyl alcohol.  
Vinylcyclopropaneglycol.

Aldehyde. See Acetaldehyde.

Aldehyde,  $C_{13}H_{14}O$ , formed by condensation of cinnamaldehyde with methyl ethyl ketone (SCHOLTZ), A., i, 368.

Aldehyde-ammonia, action of nascent hydrogen on (JEAN), A., i, 77, 78.

reduction of (TRILLAT), A., i, 407.

Aldehyde-green (MILLER and PLÖCHL), A., i, 217.

composition of (HOFMANN LECTURE), T., 623.

Aldehydes, action of zinc and ethylic bromisobutyrate on (REFORMATSKY), A., i, 128.

behaviour of, with hydrocotarnine (LIEBERMANN), A., i, 711.

poisonous effect of, on algæ and infusoria (BOKORNY), A., ii, 669.

Aldehydes, aliphatic, action of nitric acid on (PONZIO), A., i, 461.

Aldehydes of lemon-grass oil (BARBIER and BOUVEAULT), A., i, 311, 345.

Aldehydes. See also :—

Acetaldehyde.  
*para*-Acetaldehyde.  
Acraldehyde (Acrolein).  
Apiolaldehyde.  
Anisaldehyde.  
Benzaldehyde.  
Benzoyloxybenzaldehyde.  
Benzoylvanillin.  
*iso*-Butylaldehyde.  
Cinnamaldehyde.  
Citronellaldehyde.  
Crotonaldehyde.  
Cuminaldehyde.  
 $\Delta^{4,6}$ -Dihydrobenzaldehyde.  
2 : 4-Dimethoxybenzaldehyde.  
Dimethylbenzaldehyde.  
Dimethylgentisaldehyde.  
Formaldehyde.  
*para*-Formaldehyde.

Aldehydes. See :—

Formylphenylacetic acid.  
Furfuraldehyde.  
Geranaldehyde.  
Hydroxy- $\delta$ -methylfurfuraldehyde.  
Licarhodanaldehyde.  
Methylethylacetaldehyde.  
 $\delta$ -Methylfurfuraldehyde.  
Methylpropylbenzaldehyde.  
Methylsalicylaldehyde.  
Norpic acid aldehyde.  
Protocatechuic aldehyde.  
Rhodinaldehyde.  
Salicylaldehyde.  
Santalal.  
Trianisaldehyde.  
Tribenzaldehyde.  
Tribenzoylvanillin.  
Tribenzoyloxybenzaldehyde.  
Tricumaldehyde.  
Tridimethylgentistic aldehyde.  
Trigentistic aldehyde.  
Trimethylbenzaldehyde.  
2 : 2 : 4-Trimethylpentan-3-olal-1.  
Trimethylvanillin.  
Tripiperonal.  
Tritolualdehyde.  
Trivanillin.  
*iso*-Valeraldehyde.  
Vanillinacetic acid.  
Veratraldehyde.

Aldehydoaldol benzoate (FREER), A., i, 590.

Aldehydocitrazinic acid, its oxime and phenylhydrazine derivative (SELL), T., 1449 ; P., 1896, 168.

Aldol benzoate (FREER), A., i, 590.

Aldolanilide, action of ammonium sulphide on (v. MILLER and PLÖCHL), A., i, 216.

Algæ, mineral food of (MOLISCH), A., ii, 207.

effect of chlorides, bromides, and fluorides on (WYPLEL), A., ii, 266.  
poisonous action of various chemical substances on (BOKORNY), A., ii, 669.

Alimentary canal, wandering cells of the (HARDY and WESBROOK), A., ii, 42.

Alizarin, formation of, from anthracene (HOFMANN LECTURE), T., 627.

hydroxylation of (WACKER), A., i, 694.

brom-, formation of (HOFMANN LECTURE), T., 633.

$\beta$ -nitro-, preparation of (HOFMANN LECTURE), T., 633.

Alizarin-yellows, A and C, non-formation of acid compounds of (PERKIN), T., 1440 ; P., 1896, 167.

Alkachlorophyll. See Chlorophyll.  
 Alkalinity, estimation of, in cyanide solutions (BETTEL), A., ii, 276.  
 Alkaloid,  $C_8H_7NO$ , from *Lupinus albus* (SOLDAINI), A., i, 193.  
 Alkaloids, constitution of (HOFMANN LECTURE), T., 650, 651.  
 preparation of, from plant extracts (KIPPENBERGER), A., ii, 681.  
 acid solutions of, action of light on (RICHARDSON and FORTEY), T., 1349.  
 effect of, on germination of seeds (MOSSO), A., ii, 326.  
 poisonous effect of, on algæ and infusoria (BOKORNY), A., ii, 669.  
 Alkaloids from *Anhalonium* (EWELL), A., i, 710.  
*Berberis aquifolium* (POMMERHNE), A., i, 67.  
*Cusparia trifoliata* and *Galipea officinalis* (BECKURTS), A., i, 66.  
*ipecacuanha* (CRIPPS), A., i, 395.  
 estimation of (CRIPPS), A., ii, 284.  
 black Siberian lupins, amount of (SCHULZE), A., ii, 211.  
*opoponax* (BAUR), A., i, 58.  
*Sophora angustifolia* (PLUGGE), A., i, 68.  
 Alkaloids, detection of (FORMÁRIEK), A., ii, 401.  
 titration of, with iodine (KIPPENBERGER), A., ii, 282, 682.  
 quantitative separation of (KIPPENBERGER), A., ii, 681.  
 Alkaloids, vegetable, estimation of (KEBLER), A., ii, 551.  
 Alkaloids. See also :—  
 Aconine.  
 $\psi$ -Aconine.  
 Aconitine.  
 $\psi$ -Aconitine.  
 Adenine.  
 Anagryne.  
 Anhalonine.  
 Anhalonidine.  
 Apopilocarpine.  
 Aristolochine.  
 Asparagine.  
 Atisine.  
 Atropine.  
 Atroscine.  
 Baptitoxine.  
 Bebirine.  
 Benzoylpellotine.  
 Berbamine.  
 Berberine.  
 Brucine.  
 Caffeine.  
 Canadine.  
 Cephaeline.

Alkaloids. See :—  
 Chelerythrine.  
 Chelilysine.  
 Cinchona alkaloids.  
 Cinchonidine.  
 $\alpha$ -Cocathylene.  
 Cocaine.  
 $\alpha$ -Cocaine.  
 Conhydrine.  
 Coniine.  
 Conyrine.  
 Creatinine.  
 Cuskygrine.  
 Cusparine.  
 Cytisine.  
 Deoxycinchonidine.  
 Deoxycinchonine.  
 Deoxyconchinine.  
 Deoxyquinine.  
 Dihydrogranatone.  
 $\alpha$ -Ecgonine.  
 Emetine.  
 Eserine (physostigmine).  
 Gelseninine.  
 Granatanine.  
 Granatenine.  
 Granatoline.  
 Granatonine.  
 Harmaline.  
 Harmine.  
 Homocinchonidine.  
 Hydrastinine.  
 Hydrocotarnine.  
 Hyosine.  
 Lophophorine.  
 Matrine.  
 Meroquineine.  
 Mezcaline.  
 Methylscopoline.  
 Morphine.  
 Narcotine.  
 iso-Narcotine.  
 Nicotine.  
 Norsparteine.  
 Oxyacanthine.  
 Oxygranatine.  
 Papaverine.  
 Paucine.  
 Pellotine.  
 Picro- $\psi$ -aconitine.  
 Pilocarpine.  
 Piperidine.  
 Piperine.  
 Quinine.  
 Scopolamine.  
 Scopoligenine.  
 Scopoline.  
 Sparteine.  
 Strychnine.  
 Tetrahydrocinchonidine.  
 Tetrahydroquinidine.

- Alkaloids. See:—  
 Tetrahydroquinine.  
 Theobromine.  
 Tropeines.  
 $\Delta$ -Tropigenine.  
 $\Delta$ -Tropine.  
 Tropyloscopoleine.  
 Xanthines.
- Alkyl groups attached to nitrogen, estimation of (HERZIG and MEYER), A., i, 68.
- Alkylacetoacetic acids, sodio-, comparative ease of the action of ethylic salts of  $\alpha$ -bromo-fatty acids on the ethylic salts of (BISCHOFF), A., i, 464.
- Alkylmalonic acids, sodio-, comparative ease of the action of ethylic salts of  $\alpha$ -bromo-fatty acids on the ethylic salts of (BISCHOFF), A., i, 464.
- Allium cepa*, occurrence of quercetin in outer skins of bulb of (PERKIN and HUMMEL), T., 1295; P., 1896, 144.
- Allo-. See under parent substance.
- Alloisomerism (MICHAEL), A., i, 130, 682; (MICHAEL and TISSOT), A., i, 132.  
 laws of (MICHAEL), A., i, 133, 134; (LIEBERMANN), A., i, 347.
- Allophanic acid, benzoyl derivative of (VON PECHMANN and VANINO), A., i, 33.  
 ethylic salt (SCHIFF), A., i, 530; (OSTROGOVITCH), A., i, 530.  
 thio-, ethylic salt, probable non-existence of (DORAN), T., 339, 344; P., 1896, 75.
- Alloxan, physiological action of (LUSINI), A., ii, 492.
- Alloxantin from decomposition of convicin (RITTHAUSEN), A., i, 668.  
 water of crystallisation of (RITTHAUSEN), A., i, 416.  
 physiological action of (LUSINI), A., ii, 492.  
 detection of (RITTHAUSEN), A., i, 416.
- Alloxuric bases, proportions of, in urine during nephritis (ZÜLZER), A., ii, 667.  
 amounts of, in urine during disease (BAGINSKY and SOMMERFELD), A., ii, 491.  
 separation of uric acid from (KRÜGER), A., ii, 281.
- Alloys, use of aluminium in preparing (MOISSAN), A., ii, 601.  
 thermo-electromotive force of (DEWAR and FLEMING), A., ii, 4.  
 behaviour of, on solidification (GAUTIER), A., ii, 602.
- Allylacetic acid, action of sodium hydroxide on (SPENZER), A., i, 128.
- Allylacetoacetic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- 1-Allyl-5-allylimido-2-dithiourazole, (FREUND and HEILBRUN), A., i, 416.
- Allylbenzene, magnetic rotatory power, &c., of (PERKIN), T., 1084, 1126, 1143, 1149, 1224, 1246.
- n*-Allylbutylene- $\psi$ -thiocarbamide and its picrate (LUCHMANN), A., i, 546.
- Allyl-*p*-dinitrodiazamidobenzene (MELDOLA and STREATFIELD), P., 1896, 51.
- Allyldithiourazole (FREUND and HEILBRUN), A., i, 415.  
 action of hydrogen peroxide on (FREUND and HEILBRUN), A., i, 415, 416.
- Allylene (*methylacetylene*, *propinene*), preparation of (KEISER), A., i, 457.  
 $\alpha\gamma$ -dibromo- (LESPIEAU), A., i, 332.  
 1 : 2 : 3-tribromo-, action of potash on (LESPIEAU), A., i, 332.
- Allylic alcohol, preparation and properties of (HOFMANN LECTURE), T., 697.  
 bromide, preparation of (HOFMANN LECTURE), T., 697.  
 chloride, preparation of (HOFMANN LECTURE), T., 697.  
 iodide, preparation of (HOFMANN LECTURE), T., 697.  
 sulphide, preparation of (HOFMANN LECTURE), T., 697.
- Allylmalonic acid, action of sodium hydroxide on (SPENZER), A., i, 127, 128.  
 ethylic salt, rate of formation of (BISCHOFF), A., i, 85.  
 hydrolysis of (HJELT), A., i, 205.  
 action of ethylenic bromide on (BISCHOFF), A., i, 129.
- Allylmalonic acid, sodio-, ethylic salt, action of ethylic  $\alpha$ -bromobutyrate,  $\alpha$ -bromisobutyrate,  $\alpha$ -bromopropionate, and  $\alpha$ -bromisovalerate on (BISCHOFF), A., i, 467.
- Allylpropanetricarboxylic acid, ethylic salt, velocity of hydrolysis (HJELT), A., i, 600.
- Allylsuccinimide, velocity of decomposition of, by hydrochloric acid (MIOLATI), A., ii, 242.
- Allylthiocarbamide, action of solution of mercuric iodide in potassium iodide on (FOERSTER), A., i, 414.  
 halogen derivatives, action of reducing and oxidising agents on (GADAMER), A., i, 415.  
 dibromide and its salts (GADAMER), A., i, 414.

- Allylthiocarbamide, action of methylic iodide on (GADAMER), A., i, 415.  
 bromochloride (GADAMER), A., i, 414.  
 dichloride and salts (GADAMER), A., i, 415.  
 chloriodide and salts (GADAMER), A., i, 414.  
 diiodide and salts (GADAMER), A., i, 414.  
 compounds of, with inorganic salts (GADAMER), A., i, 140.  
 compounds of, with silver nitrate, action of picric acid on (GADAMER), A., i, 140.  
 combination of, with trimethylamine (GADAMER), A., i, 141.  
 Allylthiocarbamide, bromo-, formula of (GADAMER), A., i, 415.  
 Allylthiocarbimide, synthesis of (HOFMANN LECTURE), T., 697.  
 action of bromine on (DIXON), T., 17.  
 action of iodine and iodine monobromide on (DIXON), T., 26.  
 Allylthiocarbimide,  $\alpha$ -chlor- and  $\alpha$ -brom-, action of ammonia on (DIXON), T., 25.  
 Allylthiourea, action of bromine on (DIXON), T., 18, 19; P., 1895, 215.  
 action of iodine on (DIXON), T., 25; P., 1895, 216.  
 Allyltoluidine, preparation of (HOFMANN LECTURE), T., 604.  
 Almandine from Sydney, N.S.W. (SMITH), A., ii, 38.  
 Almond, proteids of the (OSBORNE and CAMPBELL), A., i, 715.  
 Aloes, detection of, in mixtures (KREMEL), A., ii, 401.  
 Alein, detection of (FORMÁNEK), A., ii, 401.  
 Aiphol. See Salicylic acid,  $\alpha$ -naphthyllic salt of.  
 Alum, influence of pressure on the solubility in water of (VON STACKELBERG), A., ii, 638.  
 effect of, in wine (SESTINI), A., ii, 342.  
 estimation of, in wines (GEORGES), A., ii, 451.  
 Aluminium, electrolytic deposition of (WARREN), A., ii, 423.  
 solution and diffusion in mercury of (HUMPHREYS), T., 1679; P., 1896, 220.  
 action of dilute ammonia on (GÖTTIG), A., ii, 524.  
 action of mercury salts on (RICHARDS), A., ii, 650.  
 action of oxalic acid on (ROSENHEIM), A., i, 278, 348.  
 Aluminium, action on solutions of salts (KIPPENBERGER), A., ii, 522.  
 action of water and other liquids on (DONATH), A., ii, 563.  
 presence of sodium in (MOISSAN), A., ii, 301.  
 Aluminium-alloys, preparation of (MOISSAN), A., ii, 602; (COMBES), A., ii, 603.  
 action of water on (MOISSAN), A., ii, 301.  
 with nickel, manganese, and chromium (COMBES), A., ii, 604.  
 with tin, silver, and antimony (GAUTIER), A., ii, 602.  
 with vanadium (MOISSAN), A., ii, 609.  
 analysis of (MOISSAN), A., ii, 338.  
 Aluminium chloride, compounds of, with ammonia (STILLMAN and YODER), A., ii, 301.  
 hydroxide, electrochemical preparation of (LORENZ), A., ii, 647.  
 oxide (*alumina*) in glass (APPERT), A., ii, 423.  
 influence of, on the reversion of superphosphate (SMETHAM), A., ii, 364.  
 potassium phosphates from Algeria (CARNOT), A., ii, 34.  
 phosphates from Algeria and France (CARNOT), A., ii, 529.  
 thiopyrophosphate (FERRAND), A., ii, 473.  
 thiophosphite (FERRAND), A., ii, 418.  
 sodium silicate, an artificial (FRIEDER), A., ii, 482.  
 ferrous sulphate, occurrence of, on bricks exposed to sulphurous anhydride (PATERSON), T., 66; P., 1895, 203.  
 sulphide, effect of high temperature on (MOURLOT), A., ii, 603.  
 telluride (WHITEHEAD), A., ii, 164.  
 Aluminium, analysis of (MOISSAN), A., ii, 338.  
 estimation of, by alkalis volumetrically (RUOSS), A., ii, 500.  
 estimation of iron, carbon, silicon, and sodium in (MOISSAN), A., ii, 339.  
 separation of, qualitatively, from iron, nickel, cobalt, chromium, manganese, and zinc (HARE), A., ii, 127.  
 separation of chromium from (JANASCH and VON CLOEDT), A., ii, 222.  
 Amalgams, properties of metals separated from their (GUNTZ), A., ii, 421.  
 Amandin, a proteid present in almond and peach kernel (OSBORNE and CAMPBELL), A., i, 715.

*Amanita muscaria*, amanitin, the red pigment of (GRIFFITHS), A., i, 653.  
 Amanitin (GRIFFITHS), A., i, 653.  
 Amaranth, red dye of (WEIGERT), A., i, 388.  
 Amber from Servia (LOSANITSCH), A., ii, 252.  
 Amber. See also Burmite.  
 Aracides, classification of (LACHMANN), A., i, 601.  
   general method for preparation of (COLSON), A., i, 282.  
   preparation from nitriles by hydrogen peroxide (DEINERT), A., i, 149.  
   action of bromine on (HOFMANN LECTURE), T., 719.  
   formation of, in plants (TREUB), A., ii, 328.  
   in nodules, amount of nitrogen as (STOKLASA), A., ii, 205.  
 Amides, thio-, preparation of (HOFMANN LECTURE), T., 710.  
 Amides. See also :—  
   Acetamide, cyano-.  
   Acetamidobenzenylazoximethenyl.  
    $\beta$ -Acetamido- $\mu$ -methylthiazole- $\alpha$ -carboxylamide.  
   Acetamidophenol, 2 : 4-bromonitro-.  
   Acetamidothymol.  
   Acetanilide.  
    $o$ -Acetanisoilamide,  $p$ -nitro-.  
   Acetethylanilamide.  
   Acetobenzamide.  
   Acetobenzanilide.  
   Acetodiphenylamide.  
   Acetoguaiacolamide, nitro-.  
   Acetomethylcarbamide.  
   Acetonylcarbamide.  
   Aceto-xylylide.  
   Acetylactylacetamide.  
   Amidoformic acid, methylamides of.  
   Amygdalylamidophenetoil.  
    $n$ -Allylbutylene- $\psi$ -thiocarbamide.  
   Allylthiocarbamide.  
   Allylthiourea.  
   Anthrappurpuramide.  
   Asparagine.  
   Aspartamide.  
   Azimidouramidobenzoic acid.  
   Azodiisobutyramide.  
   Benzamide.  
   Benzamidoacetamidothymol.  
   Benzamidobenzoylthymol.  
    $p$ -Benzamidosulphonamide.  
   Benzamidothymol.  
   Benzanilide.  
   Benzenesulphonamide.  
   Benzene- $o$ -sulphonamide,  $p$ -bromocyano-.  
   Benzenesulphonanilide.  
   Benzenesulphonphenylhydroxylamide.

Amides. See :—  
   Benzenesulphonylhydroxylamide.  
   Benzenesulphotoluidide.  
   Benzenylamidoxime.  
   Benzethylamide.  
   Benzethyleneamide.  
   Benzobutylamide.  
   Benzochloro-xyleneamides.  
   Benzodichloranilide.  
   Benzodiethylthiourea.  
   Benzoformanilide.  
   Benzoforn- $o$ -toluidide.  
   Benzoic acid, nitromethylamides of.  
   Benzomethylamide.  
   Benzo- $m$ -toluamide.  
   Benzoveratrylamide.  
   Benzo- $m$ -xylylenediamide.  
   Benzoylbenzamide,  $m$ -nitro-.  
   Benzylidenedicarbamide.  
   Benzyl- $o$ -sulphamidobenzoic acid.  
   Butyramide.  
    $ab$ -iso-Butyro- $\alpha$ -naphthylthiocarbamide.  
    $ab$ -iso-Butyrophénylthiocarbamide.  
    $ab$ -iso-Butyrotolylthiocarbamides.  
    $ab$ -iso-Butyrotolylureas.  
    $trans$ - $\pi$ -Camphanic acid.  
   Camphenesulphonamides, chloro-.  
   Camphoric acid.  
   Camphoronimamide.  
   Carbamide.  
   Carbonyldicarbamide.  
   Cinchomeramide.  
   Crotonamide.  
   iso-Crotonamide.  
   Cymenensulphonamide.  
   Diacetamidothymol.  
   Diacetodimethylanilinediamide.  
    $m$ -Diacetophénylenediamide.  
   Diactyldilactamide.  
   Diallylacetamide.  
   Dibenzamide.  
   iso-Dibenzamido- $p$ -xylydene.  
   Diethoxyphenylmalonamide.  
   Diethoxyphenyloxamide.  
   Diethylcyanacetamide.  
   Dihippenylcarbamide.  
   Dihydro- $cis$ -campholytamide.  
   Dihydrohippuroflavin.  
   Dihydroxyphenylmalonamide.  
   Dihydroxyphenyloxamide.  
   Dimethoxyphenylmalonamide.  
   Dimethoxyphenyloxamide.  
   Dimethylcyanacetamide.  
   Dimethylmalonamide.  
   Dimethylmalonic acid, methylamides of.  
   Dimethyloxamide.  
   Diphenylcarbamide.  
   Dipropylcyanacetamide.  
   Ditolylcarbamides.  
   Ethoxyphenyloxamide.

## Amides. See:—

Ethylbenzamide.  
 Ethyl-*iso*-formanilide.  
 Ethyloxamide.  
 Ethylsulphonic acid, methylamides of.  
*p*-Ethyltoluenesulphonamide.  
 Formamide.  
 Formanilide.  
 Formobenzanilide.  
 Formobenzo-*p*-toluidide.  
 Formocarbamide.  
 Hemipinamic acid.  
 Heptic acid, methylamides of.  
 Hexahydro-*p*-xylanilamide.  
 Hydrazodicarbonamide.  
 Hydrazodicarbothioallylamide.  
 3-Hydroxycyclohexane-1-carboxylamide.  
 Hydroxymethyl dihydropyridonedicarboxylamide.  
 Mandelamide.  
 Malonamide.  
 Methylamidoformamide.  
 Methylbenzamide.  
 Methylbenzylbenzamide.  
 Methyl-*iso*-butylcarbamide.  
 Methyl- $\beta$ -camphoramide.  
 Methyl dihydrofurfurandicarboxylic acid, ethylic salt of.  
 *$\beta$* -Methylethylene- $\psi$ -thiocarbamide.  
*n*-Methylethylene- $\psi$ -thiourea.  
 *$\mu$* -Methylimidazolylphenylthiourea.  
 *$\mu$* -Methylimidazolyl-*o*-tolylthiourea.  
 Methylpropylcarbamide.  
 *$\mu$* -Methylthiazole- $\alpha$ -carboxylamide.  
 1-Naphthalenesulphonamide.  
 *$\alpha$* -Naphthoylbenzamide.  
 *$\alpha$* -Naphthyl-*o*-acetamidobenzylacetamide.  
 *$\beta$* -Naphthylazocarboxylamide.  
 *$\beta$* -Naphthylopianamide.  
 Oxamide.  
*n*-Palmito-*v*-phenylbenzylthiourea.  
 *$\alpha$* -Palmito-*b*-phenylbenzylurea.  
*n*-Palmito-*v*-phenylmethylthiourea.  
 *$\alpha\beta$* -Palmitophenylthiocarbamide.  
 Palmitothiocarbamide.  
*ab*-Palmitotolylthiocarbamides.  
 *$\alpha$* -Phenoxybutyramide.  
 *$\alpha$* -Phenoxybutyrolthiamide.  
 Phenylacetamide.  
 *$\psi$* -Phenylacetamide.  
*n*-Phenylaceto-*v*-phenylbenzylthiourea.  
 Phenylacetophenylthiocarbamide.  
*ab*-Phenylaceto-*o*-tolylthiocarbamide.  
*ab*-Phenylaceto-*p*-tolylthiocarbamide.  
 Phenylallylthiocarbamide.  
 Phenylazocarboxylamide.  
 Phenylbenzylhydroxyethylamine.  
*n*-Phenylbutylene- $\psi$ -thiocarbamide.

## Amides. See:—

*p*-Phenylencarbamide.  
 Phenylisocrotyl (?) -thiocarbamide.  
*s*-Phenyl- $\gamma$ -ethoxybutylthiocarbamide.  
 Phenylglycollamide.  
 Phenylhydrazidoacetamide.  
 Phenylmethylisobutylcarbamide.  
 Phenylmethylisobutylthiocarbamide.  
 Phenylmethylisobutylthiocarbamide.  
 Phenylmethylpropylcarbamide.  
 Phenylmethylpropylthiocarbamide.  
 Phenylsulphonic acid, methylamides of.  
 Picric acid, methylamides of.  
 Pinacolylthiocarbamide.  
 Piperazine-1 : 4-dicarboxylamide.  
 Propionamide.  
*n*-Propiono-*v*-phenylbenzylthiourea.  
*n*-Propiono-*v*-phenylmethylthiourea.  
*ab*-Propionophenylthiocarbamide.  
*ab*-Propionotolylthiocarbamides.  
 Propylene- $\psi$ -thiocarbamide.  
 Pulegenamide.  
 Pyrotartaric acid, amide of.  
 Quinainamide.  
 2'-Quinolylacrylamide.  
 2'-Quinolylpropionamide.  
 Salicylamide.  
 Stearamide.  
*ab*-Stearo-*a*-naphthylthiocarbamide.  
 Stearo-*a*-naphthylurea.  
*n*-Stearo-*v*-phenylbenzylthiourea.  
 *$\alpha$* -Stearo-*b*-phenylbenzylurea.  
*ab*-Stearo-*o*-tolylthiocarbamide.  
 Stearo-*o*-tolylurea.  
*ab*-Stearo-*m*-xyllylthiocarbamide.  
*ab*-Stearo-*m*-xyllylurea.  
 Succinamide.  
 Succinic acid, methylamides of.  
 Succinic anhydride, *o*-carboxyphenylamide of.  
 Succinic anhydride,  $\beta$ -naphthylamide of.  
 Sulphamidobenzamide.  
 Sulphuric acid, methylamides of.  
 Tartronamide.  
 Tetramethyloxamide.  
 Tetramethylsuccinamide.  
 Uramidodibenzoic acids.  
 Toluenesulphonamide.  
 Tribenzenesulphonhydroxylamide.  
 Trimethylacetic acid, methylamide of.  
 Trimethylallylthiocarbamide.  
 Tritoluenesulphonamide.  
 Valeranilide.  
 Xylenesulphonamide, chloro-.  
 Amidines, discovery of (HOFMANN LECTURE), T., 704.



Amido. See Amino.

Amine  $C_9H_{15}NH_2$ , from dihydro-*cis*-campholytamide (NOYES), A., i, 696.

$C_9H_{11}Br_2NO$ , obtained by action of ammonia on dibromo- $\psi$ -cumenol bromide (AUWERS and HOF), A., i, 422.

$C_{10}H_{17}NH_2$ , from reduction of oxime of ketone  $C_{10}H_{16}O$ ; its hydrochloride and carbamide (WALLACH), A., i, 102.

$C_{14}H_{14}Br_2N_2O_2$ , obtained in the preparation of *p*-brom-*o*-anisidine (MELDOLA, WOOLCOTT, and WRAY), T., 1329.

$C_{14}H_{23}NH_2$ , from oxime of ketone  $C_{14}H_{22}O$ ; its hydrochloride, platinochloride, nitrate (WALLACH), A., i, 572.

$C_{18}H_{23}Br_2NO_2$ , derived from the dimethylaniline derivative of dibromo- $\psi$ -cumenol bromide (AUWERS and SENTER), A., i, 424.

$C_{36}H_{27}N_5$ , obtained in the oxidation of phenyl-*o*-phenylenediamine (O. FISCHER and DISCHINGER), A., i, 539.

Amines,  $C_{22}H_{20}N_2O$ , isomeric, formed by action of alcoholic potassium cyanide on benzylidene-*p*-toluidine (MILLER and PLÖCHL), A., i, 609.

Amines, action of bromine on (HOFMANN LECTURE), T., 720.

action of carbon bisulphide on (HOFMANN LECTURE), T., 663.

separation of (HOFMANN LECTURE), T., 662.

Amines, aromatic, action of phosphorous oxychloride on (MICHAELIS and SILBERSTEIN), A., i, 344.

Amines, fatty, action of arsenious chloride on (MICHAELIS and LUXEMBOURG), A., i, 343.

action of boron chloride on (MICHAELIS and LUXEMBOURG), A., i, 343, 344.

action of phosphorous chloride, oxychloride, and thiochloride on (MICHAELIS and LUXEMBOURG), A., i, 343.

action of silicon chloride on (MICHAELIS and LUXEMBOURG), A., i, 343.

Amines, secondary and tertiary, preparation of (HOFMANN LECTURE), T., 655.

partial oxidation of (DE HAAS), A., i, 122.

Amines. See also:—

Allyltoluidine.

Amines. See:—

Amylamine.

*iso*-Amylamine.

Anilaminobenzenylphenylimidine.

Aniline.

*o*-Anisidine.

*p*-Anisidine.

Arabinosamine.

Azotrinaphthylidiamine.

Benzene-4-azo-2-aminophenol, *m*-nitro-.

Benzenesulphonobenzylhydroxylamine.

Benzidine.

Benzophenylethylenediamine.

Benzophenylpropylenediamine.

Benzylamine.

Benzylaminophenetoil.

Benzylaniline.

Benzylbromomethylamine.

Benzylidibromodiethylamine.

Benzylidihydroxydiethylamine.

Benzylidimethylamine.

Benzylhydroxyethylamine.

Benzylideneaminophenylimido- $\beta$ -butyric acid.

Benzylideneaminothymol.

Benzylideneaniline.

Benzylidene-1 : 2-naphthylenediamine.

Benzylidene-*o*-phenylenediamine.

Benzylphenylhydroxyethylamine.

Benzylvinylamine.

Bishydroxytetrahydronaphthylamine.

Butylamine.

*iso*-Butylamine.

Catechol, 5-nitro-3-amino-.

$\alpha$ -Crotylamine.

*iso*-Crotylamine.

$\psi$ -Cumenol bromide, dibromo-, methylamine, ethylamine, diethylamine,  $\beta$ -naphthylamine, methylaniline, diethylaniline, derivatives of.

Cumylidene-*p*-aminothymol.

Decylamine.

Decylenediamine.

Dehydrothiotoluidine.

Diallylethylamine.

Diamylamine.

Dibenzylamine.

Dibenzylidenediaminopentamethylenetetramine.

Dibenzylidene-*o*-phenylenediamine.

Di-*iso*-butylamine.

Dicinnamylidenediaminopentamethylenetetramine.

Diethylamine.

Diethylaminohexahydrotoluic acid.

2 : 3-Diethylaminohydroxytetrahydronaphthalene.

Diethylaminophenonaphthoxazine.

Diethylaminophenonaphthoxazone.

## Amines. See:—

*m*-Diethylaminophenylic salts.  
*exo*-Diethylamino-*o*-toluic acid.  
 Diethylaniline.  
 Diethylenetriamine.  
 Diethyldiethylenediamine.  
 Diethylethylenediamine.  
 Di-*o*-hydroxybenzylidenediamino-  
 pentamethylenetetramine.  
 Dimethylamine.  
 Dimethylaminobenzenyldimethylimi-  
 dine.  
 Dimethylaminobenzenyl- $\beta$ -naphthyl-  
 imidine.  
 Dimethylaminodiphenazone.  
 2 : 3-Dimethylaminohydroxytetra-  
 hydronaphthalene.  
 Dimethylaminophenonaphthoxazime.  
 Dimethylaminophenonaphthoxazone.  
 Dimethylaminophenylic salts.  
 Dimethylaniline.  
 Dimethylnaphthylamines.  
 Dimethylnitramine.  
 Dimethyl-*p*-phenylenediamine.  
 Dimethyltoluidines.  
 Dimethyl-3 : 4-tolylenediamine.  
 Di- $\beta$ -naphthylamine.  
 Di-*m*-nitrobenzylidenediaminopenta-  
 methylenetetramine.  
 Diphenylamine.  
 Diphenyldiethylenediamine.  
 Diphenyldisulphonedimethyl-*p*-  
 phenylenediamine.  
 2 : 5-Diphenyldisulphone-*p*-phenyl-  
 enediamine.  
 Diphenylethylenediamine.  
 Diphenylformamidine.  
 Diphenylsulphone-*o*-aminophenol.  
 Dipropylamine.  
 $\gamma$ -Ethoxybutylamine.  
*p*-Ethoxyphenyl-5-chloro-*m*-tolyl-  
 amine.  
*p*-Ethoxyphenyl-*m*-ethoxy-*p*-phenyl-  
 enediamine.  
*p*-Ethoxyphenyl-*o*-tolylamine.  
*p*-Ethoxyphenyltolylene-diamines.  
 Ethoxytolylene-diamines.  
 Ethoxytolyltolylene-diamines.  
 Ethylamine.  
 Ethylaniline.  
 Galactoseamine.  
 Guanidine.  
*cyclo*-Heptenamine.  
 Heptylamine.  
 Hexadecylamine.  
 Hexamethylenediamine.  
 Hexamethylenetetramine.  
 $\beta$ -*iso*-Hexylamine.  
 Hippuro-*p*-toluylenediamine.  
 Hydroxydiphenylethylamine.  
 Hydroxy- $\beta$ -*iso*-hexylamine.  
 Hydroxyethoxymethylquinoline.

## Amines. See:—

Hydroxynaphthylhydroxyphenyl-  
 amine.  
 Hydroxyphenylamine.  
 2 : 3-Hydroxytetrahydronaphthyl-  
 amine.  
 Maltose-amine.  
 Menthylamine.  
 Mesidine.  
 Methylamine.  
 Methyl-*iso*-amylamine.  
 Methylaniline.  
 Methylbenzylamine.  
 Methylbutylamine.  
 Methyl-*iso*-butylamine.  
 Methylbutylnitramine.  
 Methyl-diethenyltetraminobenzene.  
 Methyl-diethylamine.  
 Methyl-diphenylamine.  
 $\beta$ -Methylhydroxyamine.  
 Methyl-nitramine.  
 Methyl-noropianilidic acid.  
 Methyl-noropianic acid tetrahydro-  
 quinoline.  
 Methyl-noropian- $\alpha$ -naphthalidic acid.  
 Methyl-noropian- $\beta$ -naphthalidic acid.  
 Methyl-noropian-*p*-toluidic acid.  
 Methylphenylaminobenzenylmethyl-  
 imidine.  
 Methylpropylamine.  
 Methylpropylaniline.  
 $\beta$ -Methyltetramethylenediamine.  
 Methyl-*p*-toluidine.  
 $\alpha\beta$ -Naphthobenzaldehydine.  
 $\alpha$ -Naphthylamine.  
 $\beta$ -Naphthylamine.  
 2 : 1-Naphthylaminesulphonic acid.  
 $\beta$ -Naphthylaminobenzenylmethyl-  
 imidine.  
 $\alpha$ -Naphthyl-*o*-aminobenzylamine.  
 $\beta$ -Naphthyl-*o*-aminobenzylamine.  
 $\alpha$ -Naphthyl-dipropylamine.  
 Naphthylene-diamine.  
 1 : 3-Naphthylene-diamine.  
 $\beta$ -Naphthylmethylaminobenzenyl-  
 methylimidine.  
 Bis-*p*-nitrodiazobenzenepentamethyl-  
 enetetramine.  
 Nonylamine (Ennylamine).  
 Opiananthranilic acid.  
 Opianic acid,  $\beta$ -naphthylamine.  
 Phenetidine.  
 Phenol, 2 : 4 : 6-bromonitramino-.  
 Phenylaminobenzenylanilimidine.  
 Phenylaminobenzenylmethylimidine.  
 Phenylchloramine.  
 Phenyl-dimethylamine.  
 Phenylene-diamines.  
 Phenylene-ethylenediamine.  
 Phenyl-6-ethoxy-1 : 3 : 4-tolylenedi-  
 amine.  
 Phenylethylenediamine.

Amines. See :—

Phenylglyoxyethoxybenzylamine.  
 Phenylglyoxylmethoxybenzylamine.  
 $\beta$ -Phenylhydroxylamine.  
 Phenyl ether, diamino-.  
 Phenylmethylpropylamine.  
 Phenyl-*o*-phenylenediamine.  
 Phenyltolylamine.  
 Phthalaldehydemethylaniline.  
 Phthalaldehyde- $\alpha$ -naphthylamine acid.  
 Phthalaldehyde- $\beta$ -naphthylamine acid.  
 Phthalaldehyde-*p*-toluidinic acid.  
 Phthalaldehydic- $\alpha$ -naphthylamine.  
 Phthalaldehydic- $\beta$ -naphthylamine.  
 Phthalaldehydicpiperidine.  
 Phthalaldehydictetrahydro-*iso*-quinoline.  
 Phthalaldehydic-*p*-toluidine.  
 Piperonylaminoacetone.  
 Piperonylbenzylamine.  
 Propylamine.  
 Pulegoneamine.  
 Sorbose-amine.  
 Succinylacetoxylamine.  
 Tetraethylaminodiphenoxazinium chloride and iodide.  
 Tetraethyldiamino- $\alpha$ -azonaphthalene.  
 Tetrahydrocarvylamine.  
 Tetrahydro- $\alpha$ -naphthylamine.  
 Tetrahydro- $\beta$ -naphthylamine.  
 Tetramethylaminodiphenoxazinium chloride and iodide.  
 Tetramethyldiamino- $\alpha$ -azonaphthalene.  
 Tolidine.  
 Toluidines.  
 Tolyethoxy-*o*-phenylenediamines.  
*o*-Tolyl-6-ethoxy-1 : 3 : 4-tolylenediamine.  
*m*-Tolyl-6-ethoxy-1 : 3 : 4-tolylenediamine.  
*p*-Tolyl-6-ethoxy-1 : 3 : 4-tolylenediamine.  
 Tolylmethylnitramine.  
 Triethylchrysaniline.  
 Triethyldiethylenetriamine.  
 Triethylenetriamine.  
 Triethyltriethylenetriamine.  
 Trimethylamine.  
 Trimethylchrysaniline.  
 Trimethylenephenylenediamine.  
 Tripropylamine.  
*iso*-Undecylamine (*iso*-Hendecylamine).  
 Veratrylamine.  
 Vinylamine.  
 1 : 3 : 4-Xylidine.  
*m*-Xylylene-2 : 5-diamine.  
 Xylose-amine.

Amines. See also Bases.

Amino-acid,  $C_{10}H_{19}NO_2$ , from cyano-

lauronic acid, and its platinum-chloride (HOOGEWERFF and VAN DORP), A., i, 314.

Aminoazo - compounds, velocity of change of diazoamino-compounds into (GOLDSCHMIDT and REINDERS), A., ii, 556.

Amino-compounds, poisonous effect of, on algae and infusoria (BOKORNY), A., ii, 669.

detection of (DRAGENDORFF), A., ii, 280.

Amino-derivatives. See also :—

Acetic acid (under Glycocine).  
 Acetylphenimeisatin.  
 Azobenzene.  
 Azonaphthalene.  
 Azoxybenzene.  
 Benzaldehyde.  
 Benzaldehydophenylhydrazine.  
 Benzaldehydine.  
 Benzaldoxime.  
 Benzanilide.  
 Benzenesulphonic acid.  
 Benzenylamidoxime.  
 Benzenylazoxime-ethenyl.  
 Benzethylamide.  
 Benzethylenamide.  
 Benzhydrazide.  
 Benzhydrol.  
 Benzoic acid.  
 Benzoindicarboxylic acid.  
 Benzomethylamide.  
 Benzophenone.  
 Benzoylazoxime.  
*p*-Benzoylbenzoic acid.  
 Benzoylhydrazines.  
 Benzylamine.  
 Benzylanisidine.  
 Benzylechloraniline.  
 Benzylic methylic sulphide.  
 Benzyl-*p*-phenetidine.  
 Benzyltoluidines.  
 Butyric acid.  
 Camphor.  
 Carbazole.  
 Carbostyrl.  
 Carboxyamidobenzoic acid.  
 Carvacrol.  
 Catechol.  
 Cymidine.  
 Dibenzyltetrazole.  
 Dihydroxydibenzoyldihydropyrazine.  
 Dihydroxynaphthalene.  
 Dimethylamine.  
 Dimethylaniline.  
 Dimethyltolylenediamine.  
 Diphenyl.  
 Diphenylamine.  
 Diphenylpropionic acid.  
 Durene.

## Amino-derivatives. See :—

Formic acid.  
 Guanidine.  
 Hexahydrophenylaminoacetic acid.  
*cis*-Hexahydro-*p*-toluic acid.  
*cyclo*-Hexane.  
 4-Hydroxybenzoic acid.  
 Hydroxydiphenylamine.  
 Hydroxynaphthalenesulphonic acids.  
 Hydroxynaphthoic acid.  
 Hydroxyphenazine.  
 Hydroxyquinoline.  
 Indole-2'-carboxylic acid.  
 Menthol.  
 Menthone.  
 Methanedisulphonic acid.  
*p*-Methoxydiphenylamine.  
 Methoxyphenazine.  
 3-Methoxyquinoline.  
 Methylaniline, nitro-.  
 Methylbenzylamine.  
 Methylbenzylbenzamide.  
 Methylethenylphenylene-amidine.  
 3-Methylindazole.  
 3-Methyl-5-*iso*-propylbenzene.  
 Methylthiazolecarboxylic acid.  
 Naphthaquinoneoxime.  
*sym*-Naphthazine.  
 Naphthoic acid.  
 Naphthol.  
 Naphtholsulphonic acid.  
 Naphthylbenzylhydrazine.  
 Octoic acid.  
 Orcinol.  
 Oxalic acid.  
 Pentamethylenetetramine.  
 Pentiazoline.  
 Phenol.  
 Phenolphthalein.  
 Phenoxazonecarboxylic acid.  
*p*-Phenoxybenzoic acid.  
 Phenyl *p*-tolyl ketone.  
 Phenylxylyl ketones.  
 Phenylazimidobenzene.  
 Phenylaminoazimidobenzene.  
 Phenylbenzoic acid.  
 Phenylbenzylhydrazine.  
 Phenylbenzylidenehydrazone.  
 Phenylcinnamic acid.  
 Phenylcrotonic acid.  
 5-Phenyl-2 : 6-dibenzyl-*m*-diazine.  
 Phenylc ether.  
 Phenylimido- $\beta$ -butyric acid.  
 Phenylinduline.  
 Phenylmercaptan.  
 $\alpha$ -Phenylpyridine.  
*p*-Tolyl-*o*-phenylenediamine.  
 Phenyltolylsulphone.  
 Propionic acid (under  $\alpha$ -Alanine).  
 Quinoline.  
 Tetramethyldiphenyl.

## Amino-derivatives. See :—

Tetrazole.  
 Thymol.  
 Toluene.  
*Tri*-methylenetriamine.  
 2 : 2 : 6-Trimethylpiperidine.  
 Uracyl hydrosulphide.  
 Uramidobenzoic acid.  
 Xylyleneazodiamine.  
 Amino-group, influence on the strength of acids of the (SAKURAI), T., 1659 ; P., 1896, 181.  
 Ammonia in bituminous mineral waters (PARMENTIER), A., ii, 195.  
 formation of, by electrolysis of nitric acid (IHLE), A., ii, 464.  
 electrolytic conductivity of solutions of (KONOWALOFF), A., ii, 351.  
 solubility of, in water (KONOWALOFF), A., ii, 351.  
 action of iodine on (CHATTAWAY), T., 1577 ; P., 1896, 173.  
 lecture experiment showing the combustion of oxygen in (OSSIOFF), A., ii, 356.  
 complex compounds of, with metals, constitution of (KURNAKOFF), A., ii, 170.  
 compounds of, with the chlorides of iron (MILLER), A., ii, 26.  
 influence of acids on excretion of (DUNLOP), A., ii, 484.  
 excretion of, in disease (HALLERVORDEN), A., ii, 379 ; (RUMPF), A., ii, 379, 618.  
 estimation of, in cyanide working solutions (BETTEL), A., ii, 277.  
 estimation of, in tobacco (KISSLING), A., ii, 401 ; (VEDRÖDI), A., ii, 630.  
 Ammoniacal nitrogen in minerals (EDEMANN), A., ii, 570.  
 Ammoniacum, composition of (LUZ), A., i, 249.  
 Ammonium compounds, constitution of (HOFMANN LECTURE), T., 667.  
 Ammonium salts, action of, on coagulation of milk and blood (RUIGER), A., ii, 49.  
 amalgam (PROUDE and WOOD), P., 1895, 236.  
 antimoniomalate (HENDERSON and BARR), T., 1452 ; P., 1896, 168.  
 antimoniomucate (HENDERSON and BARR), T., 1453 ; P., 1896, 168.  
 monothioarsenate (WEINLAND and RUMPF), A., ii, 473.  
 bromide, thermochemical data of the compound of mercuric cyanide and (VARET), A., ii, 88.  
 cuprous bromide (WELLS and HURLBURT), A., ii, 107.

- Ammonium carbonate, formation of, from urea in fermentation of uric acid (GÉRARD), A., ii, 668.
- chromous carbonate (BAUGÉ), A., ii, 426.
- chloride, apparatus for demonstrating the volumetric composition of (CARNEGIE and WALES), A., ii, 558.
- freezing points of dilute solutions of (LOOMIS), A., ii, 352.
- influence of pressure on the solubility in water of (VON STACKELBERG), A., ii, 638.
- action of magnesium on solutions of (VITALI), A., ii, 419.
- cuprous chlorides (WELLS and HURLBURT), A., ii, 107.
- iodide, thermochemical data of the action of mercuric cyanide on (VARET), A., ii, 148.
- cuprous iodide (WELLS and HURLBURT), A., ii, 107.
- molybdate, modified solution of (WINTON), A., ii, 622.
- iodomolybdate (CHRÉTIEN), A., ii, 651.
- perthiomoxybdate (HOFMANN), A., ii, 476.
- nitrate, thermal expansion of solutions of (DE LANNOY), A., ii, 233.
- freezing points of dilute solutions of (LOOMIS), A., ii, 352.
- sulphide, exclusion of, from qualitative analysis (TARUGI), A., ii, 391.
- sulphate, thermal expansion of solutions of (DE LANNOY), A., ii, 233.
- phosphate, suitability of, for nitri-fication (MARCILLE), A., ii, 669.
- effect of, on germination (CLAUDEL and CROCHETELLE), A., ii, 442.
- commercial, estimation of water in (HUGHES), A., ii, 70.
- vanadium alum (PICCINI), A., ii, 304.
- imidosulphonates (DIVERS and HAGA), T., 1621; P., 1896, 179.
- barium imidosulphonates (DIVERS and HAGA), T., 1622.
- mercury imidosulphonate (DIVERS and HAGA), T., 1629.
- fluoroxypertitanate (PICCINI), A., ii, 178.
- sodium, and potassium paratungstates (HALLOPEAN), A., ii, 652.
- zirconodecatungstate (HALLOPEAN), A., ii, 607.
- citrate solution, estimation of neutrality in (LORD), A., ii, 623.
- Ammonium cyanide, action of formaldehyde on (CURTIUS), A., i, 337.
- thiocyanate, electrical conductivity of solutions in acetone of (LASZCZYNSKI), A., ii, 555.
- electrolysis of a solution in acetone of (LASZCZYNSKI), A., ii, 556.
- cobaltioxalate (SÖRENSEN), A., i, 204, 205.
- Ammonium, estimation of, volumetrically (DE KONINCK), A., ii, 77.
- Ammonosinotannol in ammoniacum, and acetyl and benzoyl derivatives of (LUZ), A., i, 249.
- Ampelocissus*, constituents of sap of (HÉBERT), A., ii, 494.
- Amphibole. See Hornblende.
- Amphibolite from N.S.W., alteration to serpentine (JAQUET), A., ii, 534.
- Amygdalin, decomposition of, in the living body (GÉRARD), A., ii, 570.
- detection of (FORMÁNEK), A., ii, 401.
- Amygdalyl-4-amidophenetoil and its acetyl derivative (WENGHÖFFER), A., i, 360.
- Amylene (*methylethylethylene*), action of acetic chloride on (KONDAKOFF), A., i, 462.
- Amylene (*trimethylethylene*), action of acetic chloride on (KONDAKOFF), A., i, 462.
- bromo- (IPATIEFF), A., i, 401.
- Amylenic  $\alpha\gamma$ -dibromide, action of sodioacetylacetone on (BARBIER and BOUVEAULT), A., i, 637, 638.
- iso*-Amylenic  $\alpha\gamma$ -dibromide (IPATIEFF), A., i, 330.
- iso*-Amylenic  $\beta\gamma$ -dibromide, constitution of (IPATIEFF), A., i, 401.
- Amylactic acid, amylic salt, rotatory power of (GUYE and GOUDER), A., ii, 134.
- iso*-Amylacetacetic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- tert*.-Amylacetacetic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- iso*-Amylacetylacetone, action of sodium hydroxide on (BARBIER and BOUVEAULT), A., i, 638.
- Amylamine amidosulphonate (PAAL and JÄNICKE), A., i, 235.
- iso*-Amylamine, action of carbon bisulphide on (PONZIO), A., i, 636.
- Amylamines (BERG), A., i, 8.
- iso*-Amylcarbamine, preparation of (HOFMANN LECTURE), T., 709.
- 3'-Amyl-2'-hexylquinoline (NIEMEN-

- TOWSKI and ORZECOWSKI), A., i, 188.
- 3'-Amyl-2'-hexylquinoline-1-carboxylic acid and its hydrochloride (NIE-MENTOWSKI and ORZECOWSKI), A., i, 188.
- Amylic alcohol, action of light on (RICHARDSON and FORTEY), T, 1349; P., 1896, 164.
- iso-Amylic alcohol, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- tert.-Amylic alcohol (*dimethylethyl-carbinol*), heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- action of bromine on (IPATIEFF), A., i, 401.
- Amylic aromatic ethers, rotatory power of, compared with amylic ethers of the fatty series (WELT), A., i, 333.
- phenylic ether (WELT), A., i, 333.
- nitrite, action of sodium phenoxide on (MICHAEL), A., i, 594.
- Amylmalonic acid, amylic salt, rotatory power of (GUYE and GOUDET), A., ii, 135.
- iso-Amylmalonic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- action of ethylenic bromide on (BISCHOFF), A., i, 129.
- iso-Amylmalonic acid, sodio-ethylic salt, action of ethylic  $\alpha$ -bromopropionate,  $\alpha$ -bromobutyrate,  $\alpha$ -bromoisobutyrate, and  $\alpha$ -bromoisovalerate on (BISCHOFF), A., i, 467.
- tert.-Amylmalonic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- $\beta$ -iso-Amylnaphthalene (HOOKER), T, 1356, 1358.
- Amyl- $\alpha$ - $\psi$ -nitrole. See Pentane,  $\beta$ -nitro- $\beta$ -nitroso.
- iso-Amyl- $\psi$ -nitrole. See *as*-Dimethylpropylpseudonitrole.
- See iso-Pentane,  $\beta$ -nitro- $\beta$ -nitroso.
- Amylodextrin. See Dextrin.
- Amyloxamic acid, amylamine salt (BERG), A., i, 8.
- Amylpropyl- $\psi$ -nitrole. See Octane,  $\beta$ -nitro- $\beta$ -nitroso.
- Amylsulphamic acid, amylamine salt of (PAAL and JÄNICKE), A., i, 235.
- Anæmia, experimental, in dogs (STOCKMAN), A., ii, 263.
- alterations in the blood in (MORACZENESKA), A., ii, 618.
- Anæsthetics as a cause of acetonuria (ABRAM), A., ii, 264.
- Anagryrine and its aurichloride (PARTHEIL and SPASSKI), A., i, 657.
- Anagryris fetida*, alkaloids of (PARTHEIL and SPASSKI), A., i, 657.
- Analcite from Dresden (ZSCHAU), A., ii, 189.
- dehydration of, absorption of ammonia by (FRIEDEL), A., ii, 481, 482.
- Anaptychia*, occurrence of atranoric acid in different species of (ZOFF), A., i, 103.
- Andalusite from Bodenmais, Bavaria (WEINSCHENK), A., ii, 310.
- from Bohemia (KATZER), A., ii, 187.
- or dumortierite, from Argentina (JANNASCH), A., ii, 568.
- action of boric and hydrofluoric acids on (JANNASCH), A., ii, 576.
- Andesine from France and Sardinia (FOUQUÉ), A., ii, 532.
- Andesite, olivine, from New Zealand (SPEIGHT), A., ii, 192.
- Andradite from Algeria (GENTIL), A., ii, 115.
- from Canada (HOFFMANN), A., ii, 257.
- titaniferous, from Ontario (ADAMS and HARRINGTON), A., ii, 374.
- Andropogon Schœnanthus*, composition of oil of (BERTRAM and GILDEMEISTER), A., i, 381.
- nardus*, composition of oil of (BERTRAM and GILDEMEISTER), A., i, 381.
- Anemonin, properties of methylic and ethylic salts of (MEYER), A., i, 623.
- o*-Anethoil (MOUREU), A., i, 647.
- m*-Anethoil (MOUREU), A., i, 647.
- p*-Anethoil, preparation of, from oil of aniseed (BOUCHARDAT and TARDY), A., i, 380, 448.
- magnetic rotatory power, &c., of (PERKIN), T, 1148, 1226, 1247.
- action of bromine on (HELL and GÜNTHERT), A., i, 20.
- dibromide and its bromo-derivative, bromoketones from (HELL), A., i, 170.
- brom-, dibromide, action of aniline on (HELL and GÜNTHERT), A., i, 20.
- action of alcohol on (HELL and GÜNTHERT), A., i, 20.
- p*-Anethoil, dibrom-, dibromide (HELL and GÜNTHERT), A., i, 21.
- aniline derivative of (HELL and GÜNTHERT), A., i, 21.
- ketone from, and its ammonia derivative (HELL and GÜNTHERT), A., i, 21.

- iso*-Anethoil, brom-, and its ketone oxidation product (HELL and GAAB), A., i, 293.
- Angelica oil, products of distillation of (CIAMICIAN and SILBER), A., i, 595.
- Anglesite, containing cerussite, from Broken Hill, N.S.W. (HAMMOND), A., ii, 256.
- Anhalonium Lewinii*, alkaloids of (LEWIN), A., i, 190; (HEFFTER), A., i, 267; (EWELL), A., i, 710.
- Anhalonium Jourdanianum*, alkaloid of (LEWIN), A., i, 194.
- Anhalonidine, properties of (HEFFTER), A., i, 267.
- Anhalonine and its salts, properties of (LEWIN), A., i, 194.
- Anhydrides, action of hydrogen fluoride on (COLSON), A., i, 346.
- Anhydrides. See also:—
- Acetonylsuccinic acid, anhydride of.
  - $\pi$ -Acetoxycamphoric anhydride.
  - Acetoxymaleic anhydride.
  - $\beta$ -Acetylglutaric anhydride.
  - Acid,  $C_{15}H_{20}O_2$ , anhydride of.
  - Acids,  $C_6H_{10}O_4$  and  $C_7H_{12}O_4$ , anhydrides of.
  - Anhydrocamphoric acid.
  - Benzoic anhydride.
  - Benzoylphthalic anhydride.
  - cyclo*-Butane-1 : 3-dioxalylic anhydride.
  - cis*- $\pi$ -Camphanic acid.
  - trans*- $\pi$ -Camphanic acid.
  - Camphopyric anhydride.
  - Camphorenic anhydride.
  - Camphoric anhydride.
  - cis*-Camphotricarboxylic acid.
  - trans*-Camphotricarboxylic acid.
  - Citradibromopyrotartaric anhydride.
  - Citric-di- $\beta$ -naphthalide.
  - aa*<sup>1</sup>-Diethylglutaric acid.
  - Dihydroxymaleic anhydride.
  - Dimethylfumaric anhydride.
  - aa*<sup>1</sup>-Dimethylglutaric acid, anhydride of.
  - $\alpha\beta$ -Dimethylglutaric anhydride.
  - Dimethylmaleic anhydride.
  - Dimethylsuccinic anhydride.
  - Diisopropylsuccinic anhydride.
  - Ethoxymaleic anhydride.
  - $\alpha$ -Ethylglutaric acid anhydride.
  - 3-Fluoresceincarboxylic anhydride.
  - Glutaric anhydride.
  - Lactide.
  - Maleic anhydride.
  - $\alpha$ -Methylglutaric acid, anhydride of.
  - Methylisopropylsuccinic anhydride.
  - Pinoleglycol.
  - Phthalic anhydride.
  - Propionic anhydride.
- Anhydrides. See:—
- Propionylglycollic oxime anhydride.
  - iso*-Propylglutaric anhydride.
  - Pyrotartaric anhydride.
  - Pyruvic- $\beta$ -naphthil.
  - Succinic anhydride.
  - Tetramethylsuccinic anhydride.
  - aaa*<sup>1</sup>-Trimethylglutaric acid, anhydride of.
  - iso*-Valeric anhydride.
- Anhydrite, artificial (BRAUNS), A., ii, 111.
- Anhydroacetonebenzil. See Diphenylhydroxycyclopentanone.
- Anhydroacetonebenzilcarboxylic acid. See Diphenylhydroxycyclopentanecarboxylic acid.
- Anhydroacetonedibenzil, reduction of (JAPP and LANDER), T., 745.
- Anhydrocamphoric acid (MARSH and GARDNER), T., 76; P., 1895, 206.
- Anhydrocamphoronic acid (BREDT, ARNTZ, and HELLE), A., i, 653.
- Anhydrosdi-*o*-aminobenzophenone (SONDHEIMER), A., i, 505.
- Anhydrosdibenzylacetoacetic acid, ethylic salt of (JAPP and LANDER), T., 737; P., 1895, 146.
- Anhydrosdihydroxyhydrolapachol, synthesis of (HOOKER), T., 1370, 1378.
- Anhydroenneaheptitol (APEL and TOLLENS), A., i, 115.
- diformal (APEL and WITT), A., i, 405.
- Anhydroformyl-*m*-nitro-*o*-aminobenzhydrazide (KRATZ), A., i, 366.
- Anhydroglycopyrogallol (FRIEDLÄNDER and RÜDT), A., i, 607.
- isatin derivative of, and its triacetate (FRIEDLÄNDER and RÜDT), A., i, 607.
- Anhydroglycoresorcinol (FRIEDLÄNDER and RÜDT), A., i, 607.
- Anhydrotetronic acid (WOLFF and SCHWABE), A., i, 524.
- Anilaminobenzenylphenylimidine : its hydrochloride and picrate (VON PECHMANN), A., i, 32.
- Aniline, discovery of (HOFMANN LECTURE), T., 597.
- preparation of (HOFMANN LECTURE), T., 642.
- composition of (HOFMANN LECTURE), T., 641.
- magnetic rotatory power, &c., of (PERKIN), T., 1064, 1098, 1155, 1207, 1244.
- action of cyanic acid on (HOFMANN LECTURE), T., 648.
- action of cyanogen on (HOFMANN LECTURE), T., 590, 649.

- Aniline, action of cyanogen haloids on (HOFMANN LECTURE), T., 590.  
 action of cyanogen chloride on (HOFMANN LECTURE), T., 649, 650.  
 action of, on mercurous iodide (FRANÇOIS), A., i, 22.  
 action of phosgene gas on (HOFMANN LECTURE), T., 649.  
 chlorination of (HOFMANN LECTURE), T., 644.  
 double compounds of, with metallic salts (SCHRÖDER VAN DER KOLK), A., ii, 578.  
 estimation of water in (DOBRINER and SCHRANZ), A., ii, 403.  
 estimation of, in toluidine (DOBRINER and SCHRANZ), A., ii, 402.
- Aniline and its salts, constitution of (HOFMANN LECTURE), T., 655.  
 compounds of phosphoric acid with (HOFMANN LECTURE), T., 590.  
 hydrochloride, magnetic rotatory power, &c., of (PERKIN), T., 1111, 1159, 1218, 1235, 1246.
- Aniline, substitution products of, constitution of (HOFMANN LECTURE), T., 661.  
 substitution of chlorine and bromine in (HOFMANN LECTURE), T., 645.
- Aniline, bromo-derivatives of, basic character of (HOFMANN LECTURE), T., 646.  
*p*-brom-, action of ethylic bromide on (HOFMANN LECTURE), T., 661.  
 2 : 4 : 5-*tribrom*-, salts of (JACKSON and GALLIVAN), A., i, 353.  
 2 : 4 : 6-*tribrom*-, reduction of (JACKSON and CALVERT), A., i, 538.  
 4 : 3-bromonitro-, and its salts (WHEELER), A., i, 23.  
 6 : 3-bromonitro-, and its salts and acetyl derivative (WHEELER), A., i, 156.  
*m*-chlor-, preparation of (LÖB), A., i, 605.  
 magnetic rotatory power, &c., of (PERKIN), T., 1106, 1131, 1205, 1244.  
*p*-chlor-, preparation of (HOFMANN LECTURE), T., 645; (LÖB), A., i, 605.  
 magnetic rotatory power, &c., of (PERKIN), T., 1106, 1131, 1205, 1244.  
 action of ethylic bromide on (HOFMANN LECTURE), T., 661.
- di*-chlor-, preparation of (HOFMANN LECTURE), T., 645.  
*o*-*p*-dichlor-, preparation of (CHATTAWAY and EVANS), T., 850; P., 1896, 98.
- Aniline, 2 : 4 : 6-*trichlor*-, preparation of (HOFMANN LECTURE), T., 644.  
*p*-iodo-, preparation of (HOFMANN LECTURE), T., 649.  
*m*-nitro-, preparation of (HOFMANN LECTURE), T., 646, 647.  
 alkaline reduction of (MELDOLA and ANDREWS), T., 7; P., 1895, 214.  
 action of ethylic bromide on (HOFMANN LECTURE), T., 661.  
*p*-nitro-, electrolytic reduction of (NOYES and DOBRANCE), A., i, 22.  
 2 : 4-*d*-nitro- (CURTIUS), A., i, 339.
- Aniline-black, action of sunlight on (OGLOBIN), A., i, 649.
- Aniline-blue. See Triphenylrosaniline.
- Aniline derivative of bromo- $\psi$ -cumenol and salts (AUWERS and MARWEDEL), A., i, 150.
- Aniline-purple. See Mauve.
- Aniline-*o*-sulphonic acid (KREIS), A., i, 48.  
*p*-brom- (KREIS), A., i, 48.  
 Aniline-*m*-sulphonic acid (KREIS), A., i, 48.  
*p*-brom- (KREIS), A., i, 48.
- Anilinoacetylazoimide, nitroso- (RADENHAUSEN), A., i, 138.
- Anilinoaposafranine (FISCHER and HEPP), A., i, 323.  
 preparation of (O. FISCHER and DISCHINGER), A., i, 539.  
 carbonate (KEHRMANN and HERTZ), A., i, 510.
- Anilinoaposafranone, formation of, from aposafranone (FISCHER and HEPP), A., i, 51.
- Anilinobenzenylianilimidine : its hydrochloride and picrate (VON PECHMANN), A., i, 32.
- Anilinobenzenylmethylimidine : its picrate and hydriodide (VON PECHMANN), A., i, 31.
- $\beta$ -Anilinoacrotonic acid, amino-, ethylic salt of (HINSBERG and KOLLER), A., i, 537.
- 4 - Anilino-3 : 5-dinitrobenzoic acid (JACKSON and ITTNER), A., i, 214.
- 4-Anilino-3 : 5-dinitrotoluene (JACKSON and ITTNER), A., i, 214.
- Anilinomethylbutylcarbinol (LIPP), A., i, 317.
- $\beta$ -Anilino- $\alpha$ -methylbutyrolactone (WOLFF), A., i, 87.
- 3 : 1-Anilinonaphthol (FRIEDLÄNDER and RÜDT), A., i, 569.
- Anilinophenylaposafranine (FISCHER and HEPP), A., i, 323.



- β*-Anilinopropionic acid, ethylic salt of (HARRIES and LOTH), A., i, 321.  
 nitroso-, ethylic salt of (HARRIES and LOTH), A., i, 321.
- Anilinosafrafinines. See Indulines.
- Anilinosafrol and its hydrochloride (FISCHER and HEPP), A., i, 325.
- Anilinetoluquinone (JACOBSON, FERTSCH, MARSDEN, and SCHKOLNIK), A., i, 24.
- Anilocyanic acid. See Phenylcarbimide.
- Aniluvitonic acid. See Methylquinoline-carboxylic acid.
- Animal system, decomposition of amygdalin in (GÉRARD), A., ii, 570.
- Animals, behaviour of pentoses in (GOETZE and PFEIFFER), A., ii, 443.
- Anisaldehyde, from oil of aniseed (BOUCHARDAT and TARDY), A., i, 380, 448.  
 preparation of (BOUVEAULT), A., i, 649.  
 magnetic rotatory power, &c., of (PERKIN), T., 1128, 1136, 1200, 1242.  
*di*-nitro- (WÖRNER), A., i, 227.  
*m*-nitro- (WÖRNER), A., i, 227.
- Anisaldehydehydrazone (BOUVEAULT), A., i, 650.
- Anisgyaloxime, velocity of formation of the *anti*-modification from (LEY), A., ii, 243.  
 acetate, velocity of formation of nitrile and acetic acid from (LEY), A., ii, 243.
- Aniseed, oil of, composition of (BOUCHARDAT and TARDY), A., i, 380, 448.
- Anisic acetone, from oil of anise (BOUCHARDAT and TARDY), A., i, 448.
- Anisic acid, from oil of aniseed (BOUCHARDAT and TARDY), A., i, 380, 448.  
 magnetic rotatory power, &c., of the ethylic salt of (PERKIN), T., 1128, 1136, 1160, 1176, 1231.  
 behaviour towards phenylic isocyanate of (HALLER), A., i, 32.
- Anisic alcohol, magnetic rotatory power and relative density of (PERKIN), T., 1123, 1136, 1199, 1242.
- Anisic camphor, from oil of aniseed (BOUCHARDAT and TARDY), A., i, 380.
- o*-Anisidine, magnetic rotatory power, &c., of (PERKIN), T., 1131, 1211, 1245.  
*p*-brom- (MELDOLA, WOOLCOTT, and WRAY), T., 1329.  
 2 : 4-bromonitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1327; P., 1896, 164.
- o*-Anisidine, *p*-nitro-, and its acetyl derivative (MELDOLA, WOOLCOTT, and WRAY), T., 1329; P., 1896, 164.
- 5-nitro-, and its acetyl derivative (MELDOLA, WOOLCOTT, and WRAY), T., 1330; P., 1896, 164.
- p*-Anisidine, magnetic rotatory power, &c., of (PERKIN), T., 1131, 1211, 1245.  
*o*-iod-, and its platinumchloride, picrate, and acetyl derivative (REVERDIN), A., i, 475.  
*p*-Anisidinethiocarbamide, *o*-iod- (REVERDIN), A., i, 475.
- Anisoil (phenyl methyl oxide), magnetic rotatory power, &c., of (PERKIN), T., 1080, 1081, 1090, 1127, 1186, 1240.  
 melting point of (v. SCHNEIDER), A., ii, 290.  
 action of ethyloxalic chloride on (BOUVEAULT), A., i, 616.  
 condensation of, with phthalic anhydride (GRANDE), A., i, 563.  
 2 : 4-*di*brom-, preparation of (HIRTZ), A., i, 532.  
 bromo-*m*-iodo- (HIRTZ), A., i, 532.  
 2 : 4-bromiodo- (HIRTZ), A., i, 532.  
 4 : 2-bromiodo- (HIRTZ), A., i, 532.  
 4-bromo-2-nitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1329.  
 2 : 4-*di*bromonitro- (HIRTZ), A., i, 532.  
 chlorobromo-*m*-iodo- (HIRTZ), A., i, 532.  
*o*-iodo- (REVERDIN), A., i, 475.  
*m*-iodo-, preparation of (HIRTZ), A., i, 532.  
*p*-iodo- (REVERDIN), A., i, 475.  
 substance obtained in the nitration of (REVERDIN), A., i, 475.  
 2 : 4-*di*iodo- (REVERDIN), A., i, 475.  
*o*-iodo-*p*-nitro- (REVERDIN), A., i, 475.  
*p*-iodo-*o*-nitro- (REVERDIN), A., i, 475.  
 2 : 4-*di*nitro-, preparation of (MELDOLA, WOOLCOTT, and WRAY), T., 1330.
- Anisoldisulphonic acid, preparation of (HOFMANN LECTURE), T., 697.
- Anisoilphthaloylic acid (GRANDE), A., i, 563.
- Anisoylcarboxylic acid and its ethylic salt (BOUVEAULT), A., i, 616.
- Anisoylglyoxylic acid hydrazone (BOUVEAULT), A., i, 650.
- Anisuric acid, heat of combustion of (STOHMANN and SCHMIDT), A., ii, 466.

- Anisyl ethyl ketone and its oxime and semicarbazone (WALLACH and POND), A., i, 95.
- Anisylcamphor, crystallography of (MINGUIN), A., i, 694.
- 3'-*p*-Anisylidihydro- $\beta$ -phenotriazine and its salts (BUSCH and HARTMANN), A., i, 160.
- 3'-*o*-Anisyltetrahydroquinazoline (BUSCH), A., i, 507.
- Annual General Meeting, T., 563; P., 1896, 80.
- Anorthite from Etna (FOUQUÉ), A., ii, 532.
- from Raymond, Me. (MELVILLE), A., ii, 38.
- Anorthoclase from the Azores, Sardinia, and France (FOUQUÉ), A., ii, 532.
- from Montana (WOLFF and TARR), A., ii, 37.
- Anthracene, discovery of (HOFMANN LECTURE), T., 598.
- fluorescence of gaseous (WIEDEMANN and SCHMIDT), A., ii, 86.
- distillation of (HOFMANN LECTURE), T., 630.
- behaviour of, in sunlight (ORNDOFF and CAMERON), A., i, 176.
- analysis of (BASSETT), A., ii, 580.
- Anthracene, brom-, preparation of (HOFMANN LECTURE), T., 601; P., 1893, 138.
- dibrom- (HOFMANN LECTURE), T., 633.
- chlor-, preparation of (HOFMANN LECTURE), T., 601; P., 1893, 138.
- dichlor-, action of sulphuric acid on (HOFMANN LECTURE), T., 631.
- Anthracenedisulphonic acid, dichlor-, preparation of (HOFMANN LECTURE), T., 631.
- Anthracene-dyes, action of sunlight on (OGLOBIN), A., i, 649.
- Anthracenesulphonic acid, dichlor-, preparation of (HOFMANN LECTURE), T., 632.
- Anthrachrysone, oxidation of (WACKER), A., i, 694.
- Anthraconite, odour of (SKEY), A., ii, 184.
- Anthraflavic acid, composition of, and its diacetyl and dibenzoyl derivatives (HOFMANN LECTURE), T., 633.
- iso*-Anthraflavic acid, discovery of (HOFMANN LECTURE), T., 633.
- Anthranilic acid (*o*-aminobenzoic acid), action of acetaldehyde on (NIEMENTOWSKI and ORZECOWSKI), A., i, 187.
- action of sodium hypochlorite on (DE CONINCK), A., i, 364.
- Anthranilic acid, condensation of, with glyoxylic acid (BOETTINGER), A., i, 47.
- condensation of, with phloroglucinol (NIEMENTOWSKI), A., i, 261.
- action of heptaldehyde on (NIEMENTOWSKI and ORZECOWSKI), A., i, 188.
- Anthranol, behaviour in sunlight (ORNDOFF and CAMERON), A., i, 176.
- conversion into dianthranol (ORNDOFF and BLISS), A., i, 570.
- Anthrapurpuramide, preparation of (HOFMANN LECTURE), T., 633.
- Anthrapurpurin, formation and composition of (HOFMANN LECTURE), T., 633.
- hydroxylation of (WACKER), A., i, 694.
- Anthraquinone, discovery of (HOFMANN LECTURE), T., 601; P., 1893, 137.
- fluorescence of gaseous (WIEDEMANN and SCHMIDT), A., ii, 86.
- hydroxylation of (WACKER), A., i, 693.
- dibromo-, derivatives of (HOFMANN LECTURE), T., 633.
- Anthraquinone group of natural yellow colouring matters (PERKIN), T., 1441; P., 1896, 167.
- 1-Anthraquinonecarboxylic acid and its ethylic salt (GRAEBE and LEONHARDT), A., i, 437.
- Anthraquinonedisulphonic acid, preparation of (HOFMANN LECTURE), T., 631.
- Anthraquinoneoxime, methyl, ethyl, and benzyl-ethers (SCHUNCK and MARCHLEWSKI), T., 73; P., 1895, 203.
- Anthraquinonesulphonic acid, formation of (HOFMANN LECTURE), T., 629.
- Antimonial silver chloride from Broken Hill, N.S.W. (SMITH), A., ii, 30.
- Antimoniomalic acid, ammonium salt of (HENDERSON and BARR), T., 1452; P., 1896, 168.
- Antimoniomucic acid, salts of (HENDERSON and BARR), T., 1453; P., 1896, 168.
- Antimony, solution and diffusion in mercury of (HUMPHREYS), T., 1679; P., 1896, 220.
- Antimony-alloys with aluminium (GAUTIER), A., ii, 602.
- with iron, specific gravity and specific heat of (LABORDE), A., ii, 652.
- with silver, melting points of (GAUTIER), A., ii, 646.
- Antimony trichloride, action of potassium bromide and iodide on (SNAPE), A., ii, 641.

- Antimony pentachloride, action of, on carbon bisulphide (HOFMANN LECTURE), T., 700.  
 sulphide, physical change produced by gently heating (SPRING), A., ii, 290.  
 effect of high temperature on (MOURLOT), A., ii, 603.  
 Sulphantimonites and sulpharsenites, relations between (PENFIELD), A., ii, 659.  
 Triethylstibine, discovery of (HOFMANN LECTURE), T., 671.  
 Antimony, estimation of, in alloys with lead, tin, and arsenic (ANDREWS), A., ii, 501.  
 separation of, from mercury (JANNASCH), A., ii, 675.  
 Antipeptone. See Peptones.  
 Antipyrine: its zinc chloride and iodide and its compound with mercurous and mercuric nitrates (VAN ITALLIE), A., i, 260.  
 thiocyanate and mercuriochloride of (SCHUYTER), A., i, 575.  
 action of catechol, guaiacol, resorcinol, and quinol on (PATEIN and DUFAY), A., i, 188.  
 compounds of, with hydroxybenzoic acids (PATEIN and DUFAY), A., i, 650.  
 detection of (CARREZ), A., ii, 584.  
 estimation of, volumetrically (SCHUYTEN), A., ii, 486.  
 Antiseptic, cadmium as an (PADERI), A., ii, 491.  
 Apatite from Canaan, Conn. (HOBBS), A., ii, 34.  
 variations in the composition of (CARNOT), A., ii, 611.  
 plumbiferous, from Broken Hill, N.S.W. (LIVERSIDGE), A., ii, 657.  
 Apioaldehyde, preparation of (CIAMICIAN and SILBER), A., i, 608.  
 Apiole (CIAMICIAN and SILBER), A., i, 608.  
 brom-, dibromide (CIAMICIAN and SILBER), A., i, 608.  
*iso*-Apiole (CIAMICIAN and SILBER), A., i, 608.  
 brom-, bromide (CIAMICIAN and SILBER), A., i, 608.  
 Apioleketonic acid (CIAMICIAN and SILBER), A., i, 608.  
 Apioic acid, preparation of (CIAMICIAN and SILBER), A., i, 608.  
 Apione (CIAMICIAN and SILBER), A., i, 608.  
*di*brom- (CIAMICIAN and SILBER), A., i, 608.  
 Apophyllenic acid (BLUMENFELD), A., i, 60; (KOENIGS and WOLFF), A., i, 698.  
 Apophyllite from Algeria (GENTIL), A., ii, 114.  
 action of water on (SPEZIA), A., ii, 257.  
 fluorine and ammonium chloride in (NORDENSKIÖLD), A., ii, 369.  
 Apopilocarpine, identity of, with cytisine (DE MOER), A., i, 657.  
 Aposafranine, synthesis of (KEHRMANN and BERGIN), A., i, 629.  
 formation of, from phenosafranine and from anilidoaposafranine (FISCHER and HEPP), A., i, 51.  
 benzoyl derivative of (FISCHER and HEPP), A., i, 51.  
 hydrochloride, formula of (FISCHER and HEPP), A., i, 323.  
 Aposafranone, action of aniline on, and formation of from anilinoaposafranine (FISCHER and HEPP), A., i, 51.  
 Apparatus for accelerating reactions by mixing (MARKOWNIKOFF), A., ii, 297.  
 for experiments under pressure (WALTER), A., ii, 297.  
 for extraction (V. RIJN), A., ii, 17.  
 for washing precipitates with boiling water (JEWETT), A., ii, 123.  
 Apples, estimation of zinc in dried (LEGLER), A., ii, 450.  
 Arabin, occurrence of, in plants (YOSHIMURA), A., ii, 60.  
 occurrence of, in *Sterculia plantanifolia* (YOSHIMURA), A., ii, 60.  
 Arabinose, action of alcoholic ammonia on (DE BRUYN and VAN LEENT), A., i, 119.  
 action of fuming nitric acid on (BADER), A., i, 405.  
 estimation of, by Fehling's solution (KJELDAHL), A., ii, 581.  
 Arabinose- $\alpha$ -allylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.  
 Arabinose-amine (DE BRUYN and VAN LEENT), A., i, 119.  
 Arabinose- $\alpha$ -amylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.  
 Arabinose- $\alpha$ -benzylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.  
 Arabinosebenzylmercaptal (LAWRENCE), A., i, 272.  
 Arabinose-ethylenemercaptal (LAWRENCE), A., i, 272.  
 Arabinose- $\alpha$ -ethylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.  
 Arabinosenaphthylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.  
 Arabinosetrimethylenemercaptal (LAWRENCE), A., i, 272.

- Arabinosotrihydroxyglutaric acid, anhydride of (BADER), A., i, 405.  
 Arabitol diacetone (SPEIER), A., i, 77.  
*l*-Arabonic acid (*tetrahydroxyvaleric acid*), velocity of lactone formation of (HJELT), A., i, 597.  
 Arachidic acid (SPIECKERMANN), A., i, 410.  
 Aragonite, action of magnesium solutions on (KLEMENT), A., ii, 116.  
 Arfvedsonite, alteration of, to acmite (USSING), A., ii, 372.  
 Argentite from Broken Hill, N.S.W. (SMITH), A., ii, 30.  
 Argentoacetoguanamide. See under 6-Methyl-2 : 4-dioxotriazine.  
 Arginine, formation of, from proteid substances (HEDIN), A., i, 193.  
 from sturine (KOSSEL), A., i, 582.  
 occurrence of, and physiological action of (SCHULZE), A., ii, 383.  
 separation of glutamine from (SCHULZE), A., ii, 572.  
 Argon, discovery of, in the atmosphere (RAYLEIGH and RAMSAY), A., ii, 99.  
 percentage of, in air (SCHLOESING), A., ii, 166.  
 occurrence of, in air and water (KAYSER), A., ii, 19.  
 in mineral waters (BOUCHARD), A., ii, 117; (MOUREV), A., ii, 298; (KELLAS and RAMSAY), A., ii, 655.  
 absence of, in mineral waters of Albano (NASINI and ANDERLINI), A., ii, 366.  
 in sulphuretted waters (TROOST and OUVARD), (BOUCHARD), A., ii, 298.  
 presence of, in samples of marsh gas (SCHLOESING), A., i, 401.  
 in firedamp and coal (SCHLOESING), A., ii, 655.  
 atomic weight of (HILL), A., ii, 16; (RAYLEIGH and RAMSAY), A., ii, 105.  
 molecular formula of (NASINI), A., ii, 245.  
 position of, in the periodic system (HILL), A., ii, 16; (DEELEY), A., ii, 418; (PREYER), A., ii, 418.  
 homogeneity of (RAMSAY and COLLIK), A., ii, 645.  
 refractivity of (RAYLEIGH), A., ii, 598.  
 spectrum of (RAYLEIGH and RAMSAY), A., ii, 103; (FRIEDLÄNDER), A., ii, 457.  
 blue spectrum of (KAYSER), A., ii, 2.  
 fluorescence spectrum of (DORN and ERDMANN), A., ii, 2.  
 three different spark spectra of (EDER and VALENTA), A., ii, 405.  
 Argon, behaviour of, when submitted to the electric discharge (COLLIE and RAMSAY), A., ii, 634.  
 expansion of, by heat (KUENEN and RANDALL), A., ii, 598.  
 boiling point and critical data of (RAYLEIGH and RAMSAY), A., ii, 104.  
 advantages of, as a thermometric substance (QUINAN), A., ii, 407.  
 velocity of sound in (RAYLEIGH and RAMSAY), A., ii, 104.  
 density of (RAYLEIGH and RAMSAY), A., ii, 103, 106; (RAYLEIGH), A., ii, 598.  
 viscosity of (RAYLEIGH), A., ii, 599.  
 solubility of, in water (RAYLEIGH and RAMSAY), A., ii, 104.  
 chemical analogies of (HILL), A., ii, 418.  
 chemical behaviour of (RAYLEIGH and RAMSAY), A., ii, 105.  
 combination of, with magnesium (TROOST and OUVARD), A., ii, 99.  
 a possible compound of (RAMSAY), A., ii, 20.  
 carbon compound of, spectrum of the (CROOKES), A., ii, 2.  
 percentage of, in expired air (KELLAS), A., ii, 661.  
 presence of, in the air-bladder of fishes (SCHLOESING and RICHARD), A., ii, 436.  
 estimation of (SCHLOESING), A., ii, 166, 219.  
 separation of, from nitrogen (LIMB), A., ii, 299.  
 Aristidinic acid (HESSE), A., i, 180.  
 Aristic acid and its salts (HESSE), A., i, 180.  
 Aristolic acid (HESSE), A., i, 180.  
 Aristolin (HESSE), A., i, 180.  
*Aristolochia argentina*, constituents of the root of (HESSE), A., i, 180.  
 Aristolochic acid (HESSE), A., i, 180.  
 Aristolochine (HESSE), A., i, 180.  
 Arite from Sardinia (LOVISATO), A., ii, 183.  
 Arsenic, vapour density of (BILZ), A., ii, 152.  
 action of magnesium on solutions containing (VITALI), A., ii, 420.  
 action of, on plants (STOKLASA), A., ii, 538.  
 in coal (DOHERTY), A., ii, 566.  
 Arsenic trichloride, action of potassium bromide and iodide on (SNAPE), A., ii, 641.  
 trihydride (*arsine*), influence of the walls of the containing vessel on the rate of decomposition of (COHEN), A., ii, 593.

- estimation of (DENIGÈS), A., ii, 387.
- Arsenic Oxides :—
- Trioxide, molecular formula as vapour and in solution (BILZ), A., ii, 152.
- Arsenites, detection of (TARUGI), A., ii, 548.
- detection of, in presence of chromates (TARUGI), A., ii, 340.
- Arsenites, thio-, and thioantimonites, crystallographic relations between (PENFIELD), A., ii, 659.
- Arsenates, detection of (ANTONY), A., ii, 390.
- Arsenic acid, seleno-, salts of (SZARVASY), A., ii, 98.
- oxyselenoarsenic, and thio-selenoarsenic acids, salts of (CLEVER and MUTHMANN), A., ii, 18.
- thio- (MCCAY), A., ii, 359.
- Arsenic diselenotetrasulphide (SZARVASY), A., ii, 98.
- triselenobisulphide (SZARVASY), A., ii, 98.
- pentaselenide (CLEVER and MUTHMANN), A., ii, 18; (SZARVASY), A., ii, 98.
- sulphide, physical change produced by gently heating (SPRING), A., ii, 290.
- hydrated, and its decomposition by pressure (SPRING), A., ii, 97.
- Arsenic, detection of, in alloys of tin and lead (DE KONINGH), A., ii, 273.
- detection of, in the presence of selenium (DAWYDOW), A., ii, 219.
- estimation of (ENGEL and BERNARD), A., ii, 448; (GAUTIER), A., ii, 449.
- estimation of, as ammonium magnesium arsenate (FRIEDHEIM and MICHAELIS), A., ii, 74.
- estimation of, as trisulphide (FRIEDHEIM and MICHAELIS), A., ii, 74.
- estimation of, in alloys with lead, tin, and antimony (ANDREWS), A., ii, 501.
- estimation of, in iron ores, steel, and pig-iron (STEAD), A., ii, 390.
- estimation of, in crude sulphuric acid (HATTENSAUER), A., ii, 390.
- estimation of, in glycerol (BARTON), A., ii, 493.
- separation of cobalt from (JANNASCH and LEHNERT), A., ii, 547.
- separation of iron and manganese (JANNASCH and KAMMERER), A., ii, 221.
- separation electrolytically from gold (SMITH and WALLACE), A., ii, 220.
- separation of mercury from (JANNASCH), A., ii, 676.
- Artemisia maritima*, artemisin from (MERCK), A., i, 59.
- Artemisin from *Artemisia maritima* (MERCK), A., i, 59.
- Artocarpus integrifolia*, colouring matters of (PERKIN and BABLICH), T., 792; P., 1896, 106; (PERKIN), T., 1440; P., 1896, 167.
- Asbeferrite from Pennsylvania (GOLDSMITH), A., ii, 36.
- Asbestos from Bosnia (FOULLON), A., ii, 483.
- Asbolite from Brussels (CROCQ), A., ii, 434.
- Ascharite, formula of (KOSMANN), A., ii, 368.
- Asparagine in hops (BEHRENS), A., ii, 207.
- in young plants of *Vicia sativa* (SCHULZE), A., ii, 208.
- in certain vegetables (KINOSHITA), A., ii, 61.
- from maleic anhydride and alcoholic ammonia (PIUTTI), A., i, 669.
- from ammonia and aspartamide (PIUTTI), A., i, 668.
- action of sodium hypochlorite on (DE CONINCK), A., i, 282.
- conversion of, into bromosuccinic acids (WALDEN), A., i, 205.
- formation of, during germination (PRIANISCHNIKOFF), A., ii, 380.
- formation of, in plants supplied with nitrates and ammonia (KINOSHITA), A., ii, 54.
- formation of, of proteids from, in plants (KINOSHITA), A., ii, 54.
- part played by, in nutrition of plants (LOEW), A., ii, 57.
- in nodules, amount of nitrogen as (STOKLASA), A., ii, 205.
- detection of (MOULIN), A., ii, 629.
- Asparagine group, presence of, in legumin and vegetable albumin (FLEURENT), A., i, 112.
- Aspartamide (PIUTTI), A., i, 669.
- action of aqueous ammonia on (PIUTTI), A., i, 668.
- Aspartic acid, configuration of (FISCHER), A., i, 526.
- rotatory power of (MARSHALL), T., 1022; P., 1896, 146.
- preparation of *l*-bromo- and *l*-chlorosuccinic acid from (WALDEN), A., i, 205.
- inactive, ammonium salt of (TANATAR), A., i, 520.
- Aspergillus niger*, assimilation of nitrogen by (PURIEWITSCH), A., ii, 571.

- Aspergillus niger*, mineral nutrition of (BENECKE), A., ii, 572.  
 inversion of cane-sugar by (FERMI and MONTESANO), A., ii, 493.  
 action of, on alcoholic fermentation (BOURQUELOT and HÉRISSEY), A., ii, 321.  
 emulsin from (BOURQUELOT and HÉRISSEY), A., i, 195.  
 extraction of maltase from (BOURQUELOT), A., i, 111.  
 Asphalt, artificial production of, from petroleum (MABRY and BYERLEY), A., i, 329.  
*Asphodelus ramosus*, fermentation of (RIVIÈRE and BAILHACHE), A., 203.  
*Aspidium filix mas*, cell-membranes of (WINTERSTEIN), A., ii, 210.  
*Asplenium filix fem.*, cell-membranes of (WINTERSTEIN), A., ii, 210.  
 Assimilation. distinction between elaboration and (CROSS, BEVAN, and SMITH), T., 1605; P., 1896, 174.  
 of plants, effect of abundant application of nitrogen on (MÜLLER), A., ii, 54.  
 of plants, formation of proteids and carbohydrates in (SAPOSCHNIKOFF), A., ii, 537.  
 of nitrogen from nitrates and ammonia by plants (KINOSHITA), A., ii, 55.  
 of nitrogen by moulds (PURIEWITSCH), A., ii, 571.  
 of lecithin by plants (STOKLASA), A., ii, 266.  
 Assimilation. See further under Agricultural Chemistry (Appendix).  
 Association, molecular, in liquids (ESTREICHER), A., ii, 150.  
 of molecules in liquids, effect on the heat of evaporation of (LINEBURGER), A., ii, 9.  
 Asymmetry and symmetry, molecular (GROTH), A., ii, 159; (LADENBURG), A., ii, 244.  
 Atisine, extraction of, from the root of *Aconitum heterophyllum* and its purification (JOWETT), T., 1519; P., 1896, 158.  
 properties and salts of (JOWETT), T., 1521; P., 1896, 158.  
 action of alkalis and acids on (JOWETT), T., 1525; P., 1896, 159.  
 Atmospheric air, specific heat of (AMAGAT), A., ii, 349.  
 liquefaction of (DEWAR), P., 1895, 221; (BLOUNT), P., 1895, 232.  
 presence of argon and helium in (KAYSER), A., ii, 19.  
 attempt to detect helium in (RAYLEIGH), A., ii, 599.  
 Atmospheric air, possible occurrence of hydrogen and methane in (PHILLIPS), A., ii, 162.  
 origin of the oxygen of (PHIPSON), A., ii, 265.  
 expired, percentage of argon in (KELLAS), A., ii, 661.  
 and atmospheric, percentage of argon in (KELLAS), A., ii, 661.  
 estimation of carbonic anhydride in (HENRIET), A., ii, 624.  
 estimation of carbonic anhydride in, apparatus for (HEIDENHAIN), A., ii, 337.  
 estimation of carbonic oxide in (HALDANE), A., ii, 76.  
 estimation of oxygen in (KREIDER), A., ii, 124.  
 Atomic theory, the origin of Dalton's (DEBUS), A., ii, 639.  
 Atomic weight or weights of the elements (L. MEYER), (BEDSON), T., 1423; P., 1896, 119.  
 of the elements, relation between (LEA), A., ii, 594.  
 pairs of elements with approximately equal (LORENZ), A., ii, 639.  
 of argon (HILL), A., ii, 16; (RAYLEIGH and RAMSAY), A., ii, 105.  
 of carbon (WANKLYN), A., ii, 165.  
 of cobalt (HEMPEL and THIELE), A., ii, 302.  
 of helium (LANGLET), A., ii, 99.  
 probable, of constituents of helium (RUNGE and PASCHEN), A., ii, 2.  
 of oxygen and hydrogen, ratio of the (THOMSEN), A., ii, 244.  
 of oxygen (HILL), A., ii, 17; (THOMSEN), A., ii, 244, 471; (MORLEY), A., ii, 644.  
 of tellurium (STAUDENMAIER), A., ii, 97.  
 of Japanese tellurium (CHIKASHIGÉ), T., 881; P., 1896, 151.  
 of tungsten (SCHNEIDER), A., ii, 428.  
 of zinc (RICHARDS and ROGERS), A., ii, 21.  
 Atoms, analogy of, with vortex rings (FITZGERALD), T., 889; P., 1896, 25.  
 forces acting between (FITZGERALD), T., 901.  
 Atranoric acid, occurrence and properties of (ZOFF), A., i, 103.  
 Atropine, action of, on embryonic heart (PICKERING), A., ii, 46.  
 influence of, on secretion of urine (WALTI), A., ii, 666.  
 effect of, on germination of seeds (MOSSE), A., ii, 325.  
 titration of, by iodine (KIPPENBERGER), A., ii, 682.

- Atroscine, nature of (SCHMIDT), A., i, 712.  
and salts from commercial scopolamine (HESSE), A., i, 656.
- Augite from Bohemia (HIBSCH), A., ii, 117, 534.  
from Colorado (EAKINS), A., ii, 39.  
from Renfrew, New Jersey (WÜLFING), A., ii, 432.
- Aurin, isomeric acetyl derivatives of (HERZIG), A., i, 486.
- Autodigestion in organs after death (BRONDI), A., ii, 616.
- Autumnixanthin (STAATS), A., i, 181.
- Avenalin, the proteid of oat-kernel (OSBORNE and CAMPBELL), A., i, 716.
- Avenor elatior*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Awaruite from Zermatt (ASTON and BONNEY), A., ii, 611.
- Azelaic acid (BEHREND), A., i, 410.  
from the oxidation of undecolic acid (KRAFFT), A., i, 665.
- bis*-Azimethylenes (SCHOLTZ), A., i, 343.
- Azimid. See Azoimides.
- Azimidobenzene, from benzeneazimidole (ZINCKE), A., i, 430.  
nitro-, methyl derivative (ZINCKE and HELMERT), A., i, 301.
- 3:4-Azimidobenzoic acid and its salts and acetyl derivative (ZINCKE and HELMERT), A., i, 550.
- Azimidoethylenedicarboxylic acid (ZINCKE and HELMERT), A., i, 550.
- Azimido- $\mu$ -methylthiazole- $\alpha$ -carboxylic acid (WEIDEL and NIEMIŁOWSKI), A., i, 106.
- Azimido-*m*-uramidobenzoic acid (ZINCKE and HELMERT), A., i, 548.
- Azimido-*p*-uramidobenzoic acid (ZINCKE and HELMERT), A., i, 549.
- Azinemethanedisulphonic acid, potassium salt (VON PECHMANN), A., i, 678.
- Azines, reduction of (CURTIUS), A., i, 339.
- Azinesuccinic acid, ethylic salt, action of heat on (CURTIUS), A., i, 337, 338.
- Azoacetic acid, reduction of (CURTIUS), A., i, 338.
- Azobenzene, preparation of (LÖB), A., i, 605.  
heat of combination with benzene in the liquid and solid states (PICKERING), A., ii, 148.  
behaviour of, towards phenylhydrazine (WALTHER), A., i, 543.  
condensation with benzaldehyde. See Benzaldehyde.
- Azobenzene, amino-, behaviour of, towards phenylhydrazine (WALTHER), A., i, 543.
- Azobenzene, *p*-amino-, decomposition of, with sodium hypochlorite (CONINCK), A., i, 364.
- di-m*-diamino-, bisazimide, diacetyl and dibenzoyl derivatives, oxalate, azo- $\beta$ -naphthol derivative (MELDOLA and ANDREWS), T., 10; P., 1895, 215.
- di-m*-diamino-, behaviour of, towards *p*-nitrodiazobenzene chloride (MELDOLA and ANDREWS), T., 13.
- di*iodo-, from *di-m*-diaminoazobenzene (MELDOLA and ANDREWS), T., 13; P., 1895, 215.
- Azobenzimide. See Benzazoimide.
- Azo-*o*-benzyl-*o*-anisidine (BUSCH, BRUNNER, and BIRK), A., i, 160.
- Azoisobutyronitrile (THIELE and HEUSER), A., i, 341.
- Azo-colouring matters, formation of (VAUBEL), A., i, 28.
- Azo-compounds, action of sunlight on (OGLOBIN), A., i, 649.
- Azodisobutyramide (THIELE and HEUSER), A., i, 342.
- Azodisobutyric acid, amidoxime of (THIELE and HEUSER), A., i, 342.  
ethylic salt (THIELE and HEUSER), A., i, 342.  
imidoethyl ether, hydrochloride of (THIELE and HEUSER), A., i, 342.  
imidomethyl ether, hydrochloride of (THIELE and HEUSER), A., i, 342.  
methyl salt (THIELE and HEUSER), A., i, 342.
- Azodisobutyronitrile (THIELE and HEUSER), A., i, 342.
- Azodimethylnaphthalene (CANNIZZARO and ANDREOCCI), A., i, 488.
- Azodinaphthyl diamine. See Azonaphthalene, amino-.
- Azoimide, general account of (CURTIUS), A., i, 337.  
formation of (CURTIUS), A., i, 338.  
ammonium salt (CURTIUS), A., i, 338, 339.  
hydrazine salt (CURTIUS), A., i, 339.  
sodium salt, electrolysis of (PERATONER), A., ii, 245.  
benzoyl, glycolyl, malonyl, and succinyl derivatives of (CURTIUS), A., i, 34, 35.
- Azoimide from *m*-dinitrodiphenylamine, and its methiodide (ZINCKE and HELMERT), A., i, 300.  
from hydroxyazobenzene, and its methiodide (ZINCKE and HELMERT), A., i, 301.
- Azoimides (CURTIUS), A., i, 339.  
constitution of (ZINCKE and HELMERT), A., i, 300.

- Azoimides, action of water and of alcohol on (CURTIUS), A., i, 340.
- Azoimidocarbonic acid, methylic salt (CURTIUS and HEIDENREICH), A., i, 143.
- Azonaphthalene, amino-, discovery of (HORMANN LECTURE), T., 603; P., 1893, 138.
- Azonic compounds from phenyl-*o*-phenylenediamine and  $\beta$ -naphthaquinonesulphonic acid (KEHRMANN and LOCHER), A., i, 700.
- Azophenylethyl. See Benzenazoethane.
- o*-Azophenylic ether (HAEUSSERMANN and TEICHMANN), A., i, 533.
- p*-Azophenylic ether (HAEUSSERMANN and TEICHMANN), A., i, 533.
- Azotetrazole, electrolytic conductivity of solutions of the sodium salt of (BAUR), A., ii, 144.
- m*-Azotoluene: its dibenzylidene and di-orthohydroxybenzylidene derivatives (JACOBSON and FABIAN), A., i, 97.
- Azotrinaphthyldiamine, preparation of (HORMANN LECTURE), T., 621.
- Azoxybenzene, behaviour of, towards phenylhydrazine (WALTHER), A., i, 542.
- di-m*-amino-, dihydrochloride, diacetyl derivative, bisazimide, azo- $\beta$ -naphthol derivative (MELDOLA and ANDREWS), T., 7; P., 1895, 215.
- di*ido-, from *di-m*-aminoazoxybenzene (MELDOLA and ANDREWS), T., 10; P., 1895, 215.
- Azoxydimethylaniline, preparation of (EDELEANU and ENESCU), A., i, 359.
- Azoxyphenyl-*p*-tolyl ketone and its oxime (LIMPRICHT and LENZ), A., i, 41.
- Azoxyphenyl *m*-xylyl ketone. See Phenyl *m*-xylyl ketone, azoxy-.
- Azo-compounds. See preceding entries and also :—
- Benzenaeazimidole.
  - Benzene-4-azo-2-acetamidophenol.
  - Benzene-4-azo-2-aminophenol.
  - Benzenaeazo-*m*-cresetol.
  - Benzenaeazo-*o*-cresetol.
  - Benzenaeazocyanacetic acid.
  - Benzenaeazoethane.
  - Benzenaeazoguaiacol.
  - Benzenaeazimidofornyl cyanide.
  - Benzenaeazophenetol.
  - Benzenaeazoresorcinoloxime.
  - Benzenaeazosalicylic acid.
  - Benzenaeazoximidoresorcinol.
  - Benzenediazonium derivatives.
  - Benzenediazosulphonic acid.
  - Benzene-6 : 1-diazoxide.
  - Benzenylazoximeethenyl.
- Azo-compounds. See :—
- Benzoyl-*p*-hydroxyazobenzene.
  - Benzylideneazine.
  - Carbohydrazimine.
  - m*-Cresolbisazo-*o*-toluene.
  - m*-Cresolbisazo-*m*-toluene.
  - m*-Cresolbisazo-*p*-toluene.
  - Diazoacetophenone.
  - Diazoaminobenzene.
  - Diazoaminosulphanilic acid.
  - Diazobenzene.
  - Diazobenzene anhydride.
  - Diazobenzenemercaptan hydrosulphide.
  - Diazobenzene sulphide.
  - Diazobenzene bisulphide.
  - iso*-Diazobenzene hydroxide.
  - Diazobenzenehydroxyamidobenzyl.
  - Diazobenzenehydroxyamidomethane.
  - Diazobenzeneimide.
  - Diazobenzenesulphonic acid.
  - iso*-Diazobenzenesulphonic acid.
  - Diazobenzenethiophenyl ether.
  - Diazo-*p*-chlorobenzene tribromide.
  - Diazohydroxyamidobenzene.
  - Diazomesitylene iodide.
  - Diazomethanedisulphonic acid.
  - Diazoniumanthranilic acid.
  - Diazoperhaloids.
  - Diazophenol hydrosulphides.
  - Diazophenols.
  - Diazophenolsulphonic acids.
  - p*-Diazo-*p*-phenoxybenzoic acid.
  - Diazophenylinduline.
  - Diazopiperonylacetone.
  - Diazosalicylic acid.
  - Diazosulphanilic acid thiophenyl ether.
  - Diazotoluene.
  - Diazotoluene anhydride.
  - iso*-Diazo-*p*-toluene.
  - 6 : 1-Diazoxy-2-anisole.
  - 3 : 2-Diazoxyphenol.
  - iso*-Dihydrotetrazine.
  - Dimethylazobenzenes.
  - Diphenyleneazone.
  - Disazo-compound,  $C_{14}H_{12}N_4$ , obtained from *m*-aminobenzoic acid.
  - Formazyl hydride.
  - Formazyl-*p*-hydroxybenzene.
  - Formazyl-*p*-methoxybenzene.
  - Hydroxydiazonaphthalenesulphonic acid.
  - Malonenediazoximedibenzyl.
  - Malonenediazoxime-ethenyl.
  - Mesityldiazonium triiodide.
  - Methylazobenzenes.
  - Methylethenyldiazophenylamidine.
  - 1 : 2 : 3-Naphthaleneazohydroxynaphthoic acid.
  - $\beta$ -Naphthylazocarboxylamide.
  - o*- and *p*-Phenetolazo-*p*-phenetols.



Azo-compounds. See:—

- o*-, *m*-, and *p*-Phenetilazo-*p*-phenols.
- Phenylazocarbonanilide.
- Phenylazocarboxylic acid and amide.
- Phenylhydrazosulphonic acid.
- Phenyl-*p*-diazotolylsulphone.
- Phenylmethylpyrazoloneazobenzene.
- Phenyl-*α*-*p*-nitrophenyl-*h*-phenyl-methylformazyl.
- Phenylthiodiazobenzene.
- Tetramethylazoxyaniline.
- Tetramethyldiamino-*α*-azonaphthalene.
- Tetrazine.
- Tetraphenyldiamino-*α*-azonaphthalene.
- o*-, *m*-, and *p*-Tolueneazo-*o*-cresetols.
- o*-, *m*-, and *p*-Tolueneazo-*m*-cresetols.
- m*-Tolueneazo-*o*-cresol.
- o*-, *m*-, and *p*-Tolueneazo-*m*-cresols.
- o*-, *m*-, and *p*-Tolueneazophenetoils.
- p*-Tolueneazophenol.
- p*-Toluenediazoamidobenzenesulphonic acid.
- Trimethylazoxyaniline.
- m*-Xyleneazophenetoil.
- m*-Xyleneazophenol.

Azoimides:—

- Benzoylazoimide.
- Glycolylazoimide.
- Hippurylazoimide.
- o*-, *m*-, and *p*-Hydroxybenzoylazoimides.
- Malonylazoimide.
- Phenylazoimide.
- Phenylcarbamaazoimide.
- iso*-Phthalylazoimide.
- Succinylazoimide.
- Terephthalylazoimide.
- bis*-Toluenediazoimide.

Hydrazo compounds:—

- Acetaldehydephenylhydrazine.
- Acetoacetonphenylhydrazide.
- Acetohippurylhydrazide.
- Acetohippurylphenylhydrazide.
- Acetohydrazide.
- Acetonyl-*o*-benzoisulphinidehydrazine.
- Acetylbutylic alcohol, phenylhydrazine of.
- Acid,  $C_{15}H_{20}O_2$ , phenylhydrazide of.
- Aldehydecitrazinic acid, phenylhydrazine derivative of.
- Anisaldehydehydrazine.
- Anisylglyoxylic acid hydrazine.
- Arabinose, ethyl-, amyl-, allyl-, benzyl-, and naphthyl-hydrazones of.
- Benzaldehydephenylhydrazine.
- Benzhydrazide.
- Benzoindicarboxylic acid, osazone of.

Azo-compounds. See:—

- Benzoylcoumaronehydrazine.
- Benzoylmethylic phenylic ether phenylhydrazine.
- Benzoylveratrolphenylhydrazine.
- Desylacetophenonehydrazide.
- Diazobenzenebenzoylhydrazine.
- Diazobenzenephenylhydrazine-methanedisulphonic acid.
- Dibenzylhydrazine.
- Dicarboxyphenylglyoxylic acid phenylhydrazine.
- Diphenylhydrazine.
- Dihippurylhydrazine.
- Dimethylhydrazobenzenes, 2 : 4- and 4 : 3'.
- 2 : 6-Dimethyloctan-3-onoic acid, carbazone of.
- Diphenylcarbazidedicarboxylic acid.
- Diphenylene-*o*-dihydrazine.
- Diphenyl-4 : 5-octanedione, diphenylhydrazine of.
- Ethoxyphenylhydrazine.
- Fluorenonephenylhydrazine.
- Galactose, ethyl-, amyl-, benzyl-, allyl-, and naphthyl-hydrazones of.
- Glucose, ethyl-, amyl-, benzyl-, allyl-, and naphthyl-hydrazones of.
- Hippurylennamylidenhydrazine.
- Hippurylhydrazine.
- Hydrazioxalyl.
- Hydrazobenzene.
- Hydrazonophenylglyoxylic acid.
- p*-Hydrazophenyl ether.
- Hydroxynaphthalenesulphonic acid, hydrazo-.
- Hydroxyphenylethyl propyl ketone phenylhydrazine.
- Hydroxystyryl propyl ketone phenylhydrazine.
- Lactose, ethyl-, amyl-, allyl-, benzyl-, and naphthyl-hydrazones of.
- $\beta$ -Lactylphenylhydrazide.
- Mannose, ethyl-, amyl-, allyl-, benzyl-, and naphthyl-hydrazones of.
- Menthonementhylhydrazine.
- Menthylhydrazine.
- Methoxybenzaldehydehydrazine.
- o*-Methoxybenzophenonephenylhydrazine.
- Methylanilidobutyl ketone phenylhydrazine.
- Methylacetonedicarboxylic acid phenylhydrazine, methylic salt of.
- 3-Methyl-5-isobutyl- $\Delta_2$ -cyclohexenone and its carboxylic acids, phenylhydrazones of.

## Azo-compounds. See:—

Methylbutylhydrazine.  
 3-Methyl-5-hexyl- $\Delta^2$ -cyclohexenone and its carboxylic acids, phenylhydrazones of.  
 Methylhydrazobenzenes.  
 $\alpha$ -Methylphenylhydrazine.  
 Methylpropylbenzaldehydhydrazone.  
 Naphthylbenzylhydrazine.  
 Oxydimethylnaphthol phenylhydrazone.  
 Phenacyl-*o*-benzoisulphinidehydrazone.  
 Phenylaminobenzylhydrazine.  
 Phenylbenzylidenehydrazone.  
 Phenylbenzylidenemethylhydrazine.  
 Phenylisobutylidenehydrazine.  
 Phenylformylhydrazide.  
 Phenylhydrazine.  
 Phenylhydrazinedisulphonic acid.  
 Phenylhydrazinoacetamide.  
 Phenylhydrazinoacetanilide.  
 Phenylhydrazinoacetophenylhydrazide.  
 Phenylhydrazinoformic acid.  
 $\beta$ -Phenylhydrazinopropionic acid.  
 Phenylhydrazonemethanedisulphonic acid.  
 Phenyl hydroxystyryl ketones, phenylhydrazones of.  
 Phenylmethylisobutylidenehydrazine.  
 Phenylmethylhydrazine.  
 Phenyl *p*-tolyl ketone phenylhydrazone.  
 Phthalylhydrazide.  
*iso*-Phthalylhydrazide.  
 $\alpha$ -Pinonic acid, hydrazone of.  
 5-*iso*-Propylheptan-2-onoic acid, phenylhydrazone.  
 Pyrazolonephenylhydrazone and *p*-tolylhydrazone.  
 Pyridineacetonephenylhydrazone.  
 Quinonemonophenylbenzoylhydrazone.  
*iso*-Rhammonic acid phenylhydrazide.  
 Rhamnose, ethyl-, amyl-, allyl-, benzyl-, and naphthyl-hydrazones of.  
*iso*-Rhamnosephenylhydrazone.  
 Sulphohydrazimethylenecarboxylic acid.  
 Terephthalylhydrazidacetoacetic acid.  
 Terephthalylhydrazide.  

*p*-Tolylglyoxylic acid hydrazone.  
 Tropinonephenylhydrazone.  
 Veratraldehydhydrazone.  
 Veratroylglyoxylic acid hydrazone.

## Azo-compounds. See:—

Xylose, ethyl-, amyl-, allyl-, benzyl-, and naphthyl-hydrazones of.  
 Semicarbazides or semicarbazones:—  
 Diphenylsemicarbazide.  
 Diphenylthiosemicarbazide.  
*d*- and *l*-Menthonesemicarbazones.  
 Phenylacetylsemicarbazide.  
 Phenylacetonylsemicarbazide.  
 Phenylacetylsemicarbazide.  
 Phenylbenzoylsemicarbazide.  
 Phenylcarboxyethylsemithiocarbazide.  
 Phenylsemicarbazides.  
 Phenylsemicarbazidecarboxylic acid.  
 Phenylthiocarbazinic acid bisulphide.  
 Phenylthiosemicarbazide.  
 5-*iso*-Propylheptan-2-onoic acid semicarbazone.  
 Terpenone,  $C_{10}H_{16}O$ , semicarbazone of.  
 Thiosemicarbazides and thiocarbazides, nomenclature of.  
 Azurilic acid,  $C_4H_5N_5O_3$  (FISCHER), A., i, 142.

## B.

*Bacillus*, ropiness of beer caused by (BROWN and MORRIS), A., ii, 321.  
*amylobacter*, compound nature of (OMELIANSKI), A., ii, 203.  
 cholera, growth of, in sunlight (WESSBROOK), A., ii, 265.  
*fluorescens liquefaciens*, inversion of cane-sugar by (FERMI and MONTESANO), A., ii, 493.  
*megaterium*, inversion of cane-sugar by (FERMI and MONTESANO), A., ii, 493.  
*subtilis*, action of, on beer (BROWN), A., ii, 321.  
 Bacteria nodule, action of lime on (TACKE), A., ii, 439.  
 of the soil and nitrogen assimilation (STOKLASA), A., ii, 207.  
 which produce ammonia, action of phosphoric acid on (BURRI, HERFELDT, and STUTZER), A., ii, 445.  
 Bacteriolysis, or first stage of fermentation of certain organic substances (ADENEY), A., ii, 326.  
 Bacterium producing mannitol fermentation (BASILE), A., ii, 121.  
 Balance, an auxiliary assay (LAW), T., 526; P., 1896, 75.  
 Mohr's, modification of (GUGLIELMO), A., ii, 244.  
 Balance-sheet of the Chemical Society, March 21st, 1896, T., 572.

- Balance-sheet of the Research Fund,  
March 21st, 1896, T., 573.
- Balsam acajou, cantharidin-like effects  
of (SPIEGEL and DOBRIN), A., i,  
654.
- Mecca, resins contained in (BAUR),  
A., i, 58.
- Balsams. See also:—  
Copaiba, Gurjun, and Tolu balsams.
- Balsamodendron Kafal*, opoponax from  
(BAUR), A., i, 57.
- Baptisia Australis*, cytisine in  
(PLUGGE), A., i, 61, 68.
- tinctoria*, cytisine in (PLUGGE), A., i,  
61, 67.
- Baptitoxine, identity of cytisine with  
(PLUGGE), A., i, 67.
- Barium in rocks (HILLEBRAND), A., ii,  
191.
- injurious action of, on plants (HASEL-  
HOFF), A., ii, 267.
- Barium salts, influence of, on blood  
coagulation (HORNE), A., ii, 437.
- bromide, thermochemical data of the  
compound of mercuric cyanide and  
(VARET), A., ii, 88.
- oxybromide, thermochemical data of  
(TASSILLY), A., ii, 465.
- chlorate, action of nitric oxide on  
(AUDEN and FOWLER), A., ii,  
172.
- chloride, freezing points of solutions  
of (LOOMIS), A., ii, 352; (PON-  
SOR), A., ii, 412.
- dissociation pressure of hydrated  
(MÜLLER-ERZBACH), A., ii, 295.
- oxychloride, thermochemical data of  
(TASSILLY), A., ii, 465.
- tetrachromite (DUFAY), A., ii, 524.
- ferrate (ROSELL), A., ii, 175;  
(MOESER), A., ii, 250.
- ferrite (MOESER), A., ii, 250.
- imidosulphonates (DIVERS and  
HAGA), T., 1622; P., 1896, 179.
- periodate, action of nitric oxide on  
(AUDEN and FOWLER), A., ii, 172.
- iodide, thermochemical data of the  
action of mercuric cyanide on  
(VARET), A., ii, 148.
- iodomolybdate (CHRÉTIEN), A., ii,  
651.
- niobate (LARSSON), A., ii, 564.
- oxide, action of dry hydrogen chloride  
on (VELEY), A., ii, 360.
- sulphate, solubility of (FRESENIUS  
and HINTZ), A., ii, 499; (KÜS-  
TER), A., ii, 625.
- precipitation of, by barium chloride  
(LUNGE), A., ii, 672.
- detection and estimation of, in pre-  
sence of silicates (DE KONINGH),  
A., ii, 275.
- Barium metatungstate, physical pro-  
perties of (SOBOLEFF), A., ii,  
478.
- phosphododecatungstate, physical  
properties of (SOBOLEFF), A., ii,  
477.
- tungstitartrate (HENDERSON and  
BARR), T., 1457; P., 1896, 169.
- Barium, detection of traces of, in  
strontium salts (SÖRENSEN), A., ii,  
362.
- detection of, microchemically  
(TRAUBE), A., ii, 578.
- estimation of, by alkalis, volumetri-  
cally (RUOSS), A., ii, 500.
- separation of calcium and strontium  
from (DUPASQUIER), A., ii, 450.
- Barklyite from N.S. Wales (LIVER-  
SIDGE), A., ii, 657.
- Barley, protection of diastase by the  
colouring matter of (GREEN), A.,  
i, 110.
- changes during germination of  
(EHRICH), A., ii, 541.
- effect of chemical substances on ger-  
mination of seeds of (SIGMUND),  
A., ii, 441.
- proteids of (OSBORNE), A., i, 455.
- Barley. See also Agricultural Chem-  
istry (Appendix).
- Barley-meal, proteids from (KJELDAHL),  
A., i, 583.
- Basalt from Bondi, N.S.W. (CURRAN),  
A., ii, 40.
- from East Lothian (HATCH), A., ii,  
116.
- leucite, from Vesuvius (THORPE),  
A., ii, 41.
- Base,  $C_6H_9N_3O_2$ , from albumin salts  
(HEDIN), A., i, 659.
- $C_9H_{19}NO$ , from reduction of cam-  
phorone-oxime oxalate (KERP), A.,  
i, 448.
- $C_9H_{16}N$ , from reduction of isophor-  
one-oxime, and its oxalate, and  
carbamide (KERP), A., i, 418.
- $C_{10}H_{11}N_3$ , from phenylisobutyl-  
idenehydrazine, and its zinc chlor-  
ide compound, picrate, and bromo-  
derivative (BRUNNER), A., i, 169.
- $C_{12}H_{19}N$ , from camphoroxime and its  
salts (FORSTER), P., 1896, 146.
- Bases,  $C_{12}H_{17}ON$ , isomeric, from 1:3:4-  
xylidine and acetaldehyde, and  
their benzoyl derivatives, oximes,  
and aniline, anisidine, and 1:3:4-  
xylidine compounds (MILLER and  
FLÖCHL), A., i, 534.
- inorganic, poisonous effect of, on  
algæ and infusoria (BOKORNY), A.,  
ii, 669.

- Bauxite from Alabama (HILLEBRAND), A., ii, 40.
- Bauxites, composition of (LAUR), A., ii, 430.
- Bean, dye of blue (WEIGERT), A., i, 388.
- Beans. See Agricultural Chemistry.
- Beaumontite from Sweden (HOLST), A., ii, 312.
- Bebeerinum*, preparation of bebirine from (SCHOLTZ), A., i, 710.
- Bebirine, preparation of, from "*Bebeerinum purum*" (SCHOLTZ), A., i, 710.
- hydrochloride, methiodide, and acetyl and benzoyl derivatives and oxidation product (SCHOLTZ), A., i, 710.
- Beef-tea, estimation of solids in (DE KONINGH), A., ii, 552.
- Beer, action of *Bacillus subtilis* on (BROWN), A., ii, 321.
- ropiness* of, caused by bacteria (BROWN and MORRIS), A., ii, 321.
- the unfermentable reducing residue of (MORRIS), A., ii, 394.
- detection of fluorine in (BRAND), A., ii, 447; (HEFELMANN and MANN), A., ii, 497.
- detection of salicylic acid in (SCHOEPP), A., ii, 227.
- analysis of (MORRIS), A., ii, 394.
- black, polarisation and analysis of (HERON), A., ii, 394.
- estimation of dry substance in (ELION), A., ii, 395.
- estimation of glycerol in (LABORDE), A., ii, 77; (PARTHEIL), A., ii, 78.
- estimation of maltodextrins in (MORRIS), A., ii, 394.
- Beer-worts, removal of nitrogenous matter from malt and (EHRICH), A., ii, 540.
- polarisation and analysis of (HERON), A., ii, 394.
- estimation of dry substance in (ELION), A., ii, 395.
- estimation of proteids in (SCHJERNING), A., ii, 631.
- Beeswax. See Wax.
- Beetroot, composition of pollen of flowers of (STIFT), A., ii, 541.
- red dyes of (WEIGERT), A., i, 388.
- See Agricultural Chemistry (Appendix) and Sugars.
- Behenoxylic acid, constitution of (SPIECKERMANN), A., i, 410.
- Benzaldehyde, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1091, 1125, 1199, 1242.
- from the electrolysis of potassium mandelate (WALKER), T., 1279.
- reduction of (KAUFFMANN), A., i, 649.
- Benzaldehyde, action of ethylic orthoformate on (CLAISEN), A., i, 464.
- action of, on hydrocotarnine (LIEBERMANN), A., i, 711.
- condensation of, with acetophenone (VON KOSTANECKI and ROSSBACH), A., i, 556.
- condensation of, with adipinketone (VORLÄNDER and HOBOM), A., i, 603.
- condensation of, with *o*-aminobenzyl-*p*-toluidine, *o*-aminobenzyl-*o*-toluidine, *o*-aminobenzyl-*o*-anisidine (BUSCH), A., i, 507.
- condensation of, with azobenzene (BARSILOWSKY), A., i, 358.
- condensation of, with *cyclohexanone* and with *isobutylic* acetonedicarboxylate (PETRENKO-KRITSCHENKO and ARZIBASCHEFF), A., i, 671.
- condensation of, with *o*-hydroxyacetophenone (FRIEDLÄNDER and RÜDT), A., i, 439.
- condensation of, with *o*-nitroacetophenone (ENGLER and DORANT), A., i, 49.
- condensation of, with thiophen (TÖHL and NÄHKE), A., i, 690.
- condensation of, with *p*-tolyl methyl ketone (KOSTANECKI and ROSSBACH), A., i, 688.
- lithium hydrogen sulphite (FAGARD), A., i, 39.
- Benzaldehyde, *o*- and *m*-, chloro-, preparation of (GNEHM and BÄNZIGER), A., i, 432.
- 3 : 4-dichloro-, preparation of (GNEHM and BÄNZIGER), A., i, 432.
- 2 : 5-dichloro-, preparation of (GNEHM and BÄNZIGER), A., i, 432.
- aniline, methylamine, and *p*-phenetidine derivatives of (GNEHM and BÄNZIGER), A., i, 432.
- condensation product of, with dimethylaniline (GNEHM and BÄNZIGER), A., i, 432.
- 2 : 5-dichloro-6-amino- (GNEHM and BÄNZIGER), A., i, 432.
- 2 : 5-dichloro-6-nitro-, and its aniline derivative (GNEHM and BÄNZIGER), A., i, 432.
- substance, free from nitrogen, obtained from, by action of sodium sulphite (GNEHM and BÄNZIGER), A., i, 433.
- 2 : 5-dichloro-2-nitro-, and its aniline derivative (GNEHM and BÄNZIGER), A., i, 432.
- o*-iodo-, and its dichloride (PATTERSON), T., 1006; P., 1896, 153.
- m*-iodo-, and its dichloride (PATTERSON), T., 1002; P., 1896, 153.

- Benzaldehyde, *p*-iodo-, and its dichloride (PATTERSON), T., 1005; P., 1896, 153.
- o*-iodoso- (PATTERSON), T., 1007; P., 1896, 153.
- m*-iodoso- (PATTERSON), T., 1003; P., 1896, 153.
- acetate. See Acetic acid, benzaldehyde, *m*-iodoso, salt of.
- p*-iodoso- (PATTERSON), T., 1005; P., 1896, 153.
- m*-iodoxy- (PATTERSON), T., 1004; P., 1896, 153.
- p*-iodoxy- (PATTERSON), T., 1005; P., 1896, 153.
- nitro-, heat of combustion of (MATIGNON and DELIGNY), A., ii, 88.
- m*-nitro-, condensation of, with *o*-aminobenzylamine, (BUSCH), A., i, 507.
- p*-nitro-, condensation of, with aniline (PRUD'HOMME), A., i, 307.
- Benzaldehydecyanhydrin, hydrolysis of, with alkalis (GLÜCKSMANN), A., i, 39.
- condensation of, with benzaldehyde (FISCHER), A., i, 262.
- Benzaldehydediphenylhydrazine (CAUSSE), A., i, 611.
- Benzaldehydphenylhydrazone (WALKER), T., 1279.
- action of formaldehyde on (WALKER), T., 1285.
- Benzaldehydephenylhydrazone, 2 : 5-dichloro- (GNEHM and BÄNZIGER), A., i, 432.
- 2 : 5-dichloro-6-amino- (GNEHM and BÄNZIGER), A., i, 432.
- 2 : 5-dichloro-6-nitro- (GNEHM and BÄNZIGER), A., i, 432.
- 2 : 5-dichloro-*p*-nitro- (GNEHM and BÄNZIGER), A., i, 432.
- o*-iodo- (PATTERSON), T., 1008; P., 1896, 153.
- m*-iodo- (PATTERSON), T., 1009; P., 1896, 153.
- p*-iodo- (PATTERSON), T., 1009; P., 1896, 153.
- Benzaldehydine, amino- (HINSBERG and KOLLER), A., i, 537.
- Benzantaldoxime and its hydrochloride (LUXMOORE), T., 177; P., 1895, 149.
- action of phosphorus trichloride on (LUXMOORE), T., 191; P., 1895, 149.
- action of phosphorus pentachloride on (LUXMOORE), T., 190; P., 1895, 149.
- chloro-derivative of (LUXMOORE), T., 191; P., 1895, 149.
- Benzaldoxime sulphates (LUXMOORE), T., 180; P., 1895, 149.
- Benzaldoxime, 2 : 5-dichloro-6-amino- (GNEHM and BÄNZIGER), A., i, 432.
- 2 : 5-dichloro-6-nitro- (GNEHM and BÄNZIGER), A., i, 432.
- 2 : 5-dichloro-*p*-nitro- (GNEHM and BÄNZIGER), A., i, 432.
- o*-iodo- (PATTERSON), T., 1008; P., 1896, 153.
- m*-iodo-, and its dichloride (PATTERSON), T., 1008; P., 1896, 153.
- p*-iodo- (PATTERSON), T., 1008; P., 1896, 153.
- Benzsynaldoxime, preparation of (HANTZSCH and SCHULTZE), A., i, 672.
- velocity of formation of benz-*anti*-aldoxime from (LEY), A., ii, 243.
- action of phosphorus trichloride on (LUXMOORE), T., 192; P., 1895, 149.
- salts of (LUXMOORE), T., 180; P., 1895, 149.
- hydrochloride (LUXMOORE), T., 179; P., 1895, 149.
- acetate, velocity of formation of nitrile and acetic acid from (LEY), A., ii, 243.
- p*-brom-, velocity of formation of nitrile and acetic acid from (LEY), A., ii, 243.
- p*-chlor-, velocity of formation of nitrile and acetic acid from (LEY), A., ii, 243.
- p*-iodo-, velocity of formation of nitrile and acetic acid from (LEY), A., ii, 243.
- p*-chlor-, velocity of formation of the *anti*-modification from (LEY), A., ii, 243.
- Benzaldoximes, isomerism of alkyl derivatives of (LUXMOORE), T., 187; P., 1895, 149.
- methyl derivatives of (LUXMOORE), T., 186.
- iso*-Benzaldoximido-acetic acid (HANTZSCH and WILD), A., i, 285.
- action of halogen acids on (HANTZSCH and WILD), A., i, 286.
- its metallic salts and ethylic salt, (HANTZSCH and WILD), A., i, 285.
- Benzamide (CURTIUS), A., i, 340.
- preparation of (LUXMOORE), T., 188; (BUSCH and STERN), A., i, 677.
- magnetic rotatory power, &c., of (PERKIN), T., 1114, 1216, 1246.
- heat of solution in ethylic alcohol of (SPEYERS), A., ii, 411.
- action of phosphorus trichloride on (LACHMANN), A., i, 601.
- decomposition of, with sodium hypochlorite (CONINCK), A., i, 364.
- action of sodium ethoxide on (COHEN

- and ARCHDEACON), T., 94; P., 1896, 8.
- Benzamide, acetyl derivative of (BLANCHER), A., i, 33.
- Benzamide, *o*-chloro-, thermochemical data of (RIVALS), A., ii, 410.
- thio-, action of iodine on (HOFMANN LECTURE), T., 714.
- Benzamidine, condensation of, with benzoin (KULISCH), A., i, 627.
- Benzamidoacetamidothymol (SODERI), A., i, 359.
- Benzamidobenzene, chloro- (SLOSSON), A., i, 216.
- o*-Benzamidobenzonitrile (PINNORO and SÄMANN), A., i, 366.
- Benzamidobenzoylthymol (PLANCHER), A., i, 358.
- 2-Benzamidodiphenyl (PICTET and HUBERT), A., i, 53, 483.
- Benzamido-*p*-methylbenzylamide (LUSTIG), A., i, 163.
- 3-Benzamidoquinoline (CLAUS and SCHNELL), A., i, 320.
- p*-Benzamidosulphonamide (REMSEN and MUCKENFUSS), A., i, 482.
- Benzamidosulphonamide, infusible (REMSEN and MUCKENFUSS), A., i, 482.
- Benzamidosulphonic acid, *p*-bromo-, ethylic salt of (BÖTTINGER), A., i, 372.
- 5-Benzamidotetrazole (THIELE and INGLE), A., i, 107.
- Benzamidothymol and its benzoate (PLANCHER), A., i, 358.
- Benzanilide, preparation of (COHEN and ARCHDEACON), T., 92; (BUSCH and STERN), A., i, 677.
- benzoyl derivative of (HALLER), A., i, 33.
- m*-nitro-*o*-amino- (KEATZ), A., i, 365.
- Benzanilamide sodium ethoxide (COHEN and ARCHDEACON), T., 94; P., 1896, 8.
- Benzazide. See Benzoylazoimide.
- Benzene, discovery of (HOFMANN LECTURE), T., 597.
- discovery of, in coal tar (HOFMANN LECTURE), T., 690.
- constitution of (HEYL and MEYER), A., i, 145; (BRÜHL), A., i, 147; (MEYER), A., i, 213; (VAUBEL), A., i, 213, 352, 646; (HANTZSCH), A., i, 419.
- constitution according to the vortex atom, theory of (FITZGERALD), T., 892; P., 1896, 25.
- magnetic rotatory power, &c., of (PERKIN), T., 1064, 1082, 1084, 1085, 1191, 1241.
- heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237; (GRIFFITHS and MARSHALL), A., ii, 349.
- Benzene, influence of pressure on the freezing points of solutions of substances in (COLSON), A., ii, 157.
- volume changes during the formation of solutions in (JONES), P., 1895, 179.
- derivatives, action of bromine on, and the effect of various groups on the orientation (VAUBEL), A., i, 147.
- $\alpha$ -hexabromide (ORNDORF and HOWELLS), A., i, 474.
- $\beta$ -hexabromide (ORNDORF and HOWELLS), A., i, 474.
- hexabromide, *cis*- and *trans*-modifications of (ORNDORF and HOWELLS), A., i, 474.
- estimation of, in illuminating gas (NOYES and BLINKS), A., ii, 128.
- separation of, from light petroleum (HENRIQUES), A., ii, 77.
- separation of, from coal-tar naphtha (HOFMANN LECTURE), T., 598.
- Benzene, bromo-, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1118, 1119, 1202, 1243.
- melting point of (v. SCHNEIDER), A., ii, 290.
- action of sodium on (WEILER), A., i, 242.
- condensation of, with ethylic oxalate (FREY), A., i, 99.
- o*-dibromo-, preparation of (BRUYN and VAN LEENT), A., i, 605.
- 1 : 3 : 5-*tribromo*- (JACKSON and CALVERT), A., i, 473.
- reduction of (JACKSON and CALVERT), A., i, 538.
- action of sodium ethoxide on (JACKSON and CALVERT), A., i, 473.
- 1 : 2 : 3 : 5-*tetrabromo*- (JACKSON and CALVERT), A., i, 473.
- 1 : 2 : 4 : 5-*tetrabromo* (JACKSON and CALVERT), A., i, 473.
- 1 : 4-bromido-, preparation of (HIRTZ), A., i, 531.
- 1 : 3 : 5 : 2-*tribromido*-, preparation of (JACKSON and CALVERT), A., i, 473.
- insoluble substance formed in the decomposition of (JACKSON and CALVERT), A., i, 473.
- o*-bromonitro-, preparation of (COSTE and PARRY), A., i, 352; (DE CONINCK), A., i, 473; (ULLMANN), A., i, 605.
- m*-bromonitro- (DE CONINCK), A., i, 473.
- p*-bromonitro- (COSTE and PARRY), A., i, 352; (DE CONINCK), A., i, 473.

- Benzene, 4 : 1 : 2-bromodinitro- (CURTIUS), A., i, 339.
- 1 : 3 : 5 : 2 : 4-tribromodinitro- (JACKSON and CALVERT), A., i, 473.
- reduction of (JACKSON and CALVERT), A., i, 538.
- tribromotrinitro-, action of sodium ethoxide on (JACKSON and CALVERT), A., i, 473.
- tetrabromo-*m*-dinitro-, action of sodium ethoxide on (JACKSON and CALVERT), A., i, 473.
- chloro-, preparation of, by Sandmeyer's reaction (WALTER), A., i, 472.
- magnetic rotatory power, &c., of (PERKIN), T., 1064, 1118, 1202, 1243.
- melting point of (V. SCHNEIDER), A., ii, 290.
- o*-dichloro-, preparation of (BRUYN and VAN LEENT), A., i, 604.
- melting point of (DE CONINCK), A., i, 703.
- m*-dichloro-, preparation of (CHATTAWAY and EVANS), T., 848; P., 1896, 97; (BRUYN and VAN LEENT), A., i, 604.
- melting point of (DE CONINCK), A., i, 473.
- condensation of with chlorobenzene (CHATTAWAY and EVANS), T., 982; P., 1896, 114.
- p*-dichloro-, preparation of (BRUYN and VAN LEENT), A., i, 604.
- melting point of (DE CONINCK), A., i, 473.
- magnetic rotatory power, &c., of (PERKIN), T., 1120, 1202, 1243.
- influence of pressure on the freezing point of a benzene solution of (COLSON), A., ii, 157.
- 1 : 3 : 5-trichloro-, preparation of (BRUYN and VAN LEENT), A., i, 604, 605.
- tetrachloro- (GNEHM and BÄNZIGER), A., i, 432.
- 1 : 2 : 4 : 6-tetrachloro- (ZAHARIA), A., i, 646.
- 1 : 2 : 3 : 5-tetrachloro-, preparation of (BRUYN and VAN LEENT), A., i, 604.
- pentachloro-, preparation of (ZAHARIA), A., i, 646.
- hexachloro-, preparation of (ZAHARIA), A., i, 646.
- 2 : 1 : 3 : 5-chlorotribromo- (JACKSON and CALVERT), A., i, 473.
- p*-chlorocyano- (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 373.
- chloro-*p*-iodo-, from *p*-chlorodiazobenzene anhydride (BAMBERGER), A., i, 299.
- Benzene, *p*-chloriodoxy-, preparation of (WILLGERODT), A., i, 533.
- o*-chloronitro-, preparation of (ULLMANN), A., i, 605.
- melting point of (DE CONINCK), A., i, 473.
- m*-chloronitro-, melting point of (DE CONINCK), A., i, 473.
- p*-chloronitro-, melting point of (DE CONINCK), A., i, 473.
- action of hydrochloric acid on (BRUYN and VAN LEENT), A., i, 604.
- condensation of, with benzylamine (KEHRMANN and TIKHVINSKY), A., i, 511.
- p*-chlorothiocyano- (HANTZSCH and HIRSCH), A., i, 429.
- fluoro-, magnetic rotatory power, &c., of (PERKIN), T., 1118, 1119, 1162, 1201, 1243.
- iodo-, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1118, 1119, 1203, 1243.
- melting point of (V. SCHNEIDER), A., ii, 290.
- hexiodo- (RUFF), A., i, 618.
- o*-iodonitro-, preparation of (ULLMANN), A., i, 605.
- iodoxy-, preparation of (WILLGERODT), A., i, 533.
- action of barium hydroxide on (WILLGERODT), A., i, 676.
- nitro-, preparation of (HOFMANN LECTURE), T., 607.
- magnetic rotatory power, &c., of (PERKIN), T., 1064, 1094, 1180, 1239.
- behaviour of, towards hydroxylamine (ANGELI), A., i, 613.
- reduction of (WISLICIENUS), A., i, 298, 672; (LOB), A., i, 533, 605.
- metabolism in, poisoning by (MÜNZER and PALMA), A., ii, 662.
- o*-dinitro-, action of hydrochloric and hydrobromic acids on (BRUYN and VAN LEENT), A., i, 604, 605.
- m*-dinitro-, magnetic rotatory power, &c., of (PERKIN), T., 1095, 1181, 1239.
- heat of combination with naphthalene in the liquid and solid states (PICKERING), A., ii, 148.
- influence of pressure on the freezing point of a benzene solution of (COLSON), A., ii, 157.
- reduction of (HOFMANN LECTURE), T., 647.
- action of hydrochloric acid on

- (BRUYN and VAN LEENT), A., i, 604.
- Benzene, *p*-dinitro-, action of hydrochloric acid on (BRUYN and VAN LEENT), A., i, 604.
- 1 : 3 : 5-trinitro- (HILL and TORRAY), A., i, 90.
- action of hydrochloric acid on (BRUYN and VAN LEENT), A., i, 604.
- action of soda on (MEYER), A., i, 419.
- compound of, with potassium methoxide (MEYER), A., i, 419; (BRUYN and VAN LEENT), A., i, 147.
- nitroso-, preparation of (PILOTY), A., i, 556.
- behaviour of, towards phenylhydrazine (WALTHER), A., i, 512.
- o*-dinitroso- (ZINCKE), A., i, 430.
- Benzeneazimidole, reduction and oxidation of (ZINCKE), A., i, 429.
- Benzene-4-azo-2-acetamidophenol, *m*-nitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1324.
- Benzene-4-azo-2-aminophenol, *m*-nitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1325.
- Benzeneazo-*o*-cresetol, reduction of (JACOBSEN, FERTSCH, MARSDEN, and SCHKOLNIK), A., i, 23.
- Benzeneazo-*m*-cresetol, reduction of (JACOBSEN, FERTSCH, MARSDEN, and SCHKOLNIK), A., i, 24.
- Benzeneazocyanacetic acid, propylic, butylic, and amyllic salts, modifications of (FAVREL), A., i, 479.
- Benzeneazoethane, conversion into acet-aldehydephenylhydrazone (FISCHER), A., i, 361.
- Benzeneazoguaiacol, *m*-nitro-, and its benzoate [OH : OMe : N<sub>2</sub> = 1 : 2 : 4] (MELDOLA, WOOLCOTT, and WRAY), T., 1333.
- Benzeneazimidoformyl cyanide (NEF), A., i, 73.
- Benzeneazophenetol, derivatives of, reduction of (JACOBSEN), A., i, 23.
- Benzeneazoresorcinoloxime, effect of, on the freezing point of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 475.
- Benzeneazosalicylic acid, potassium, ethylic salts (HEWITT and STEVENSON), T., 1265; P., 1896, 150.
- o*-chloro-, ammonium, potassium, silver, methylic, ethylic salts, behaviour towards bases (HEWITT and STEVENSON), T., 1258; P., 1896, 149.
- m*-chloro-, ammonium, silver, barium, potassium, methylic, ethylic salts (HEWITT and STEVENSON), T., 1262; P., 1896, 150.
- Benzeneazosalicylic acid, *p*-chloro-, potassium, ammonium, barium, silver, methylic, ethylic salts (HEWITT and STEVENSON), T., 1263; P., 1896, 150.
- Benzeneazoximidoresorcinol, effect of, on the freezing point of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 475.
- Benzenediazonium chloromiodide, chlorodiodide, dichloriodide, bromodiodide, dibromiodide, chlorodibromide, and bromodichloride (HANTZSCH), A., i, 93.
- thiocyanate (HANTZSCH and HIRSCH), A., i, 428.
- Benzenediazonium, *p*-bromo-, bromodiodide, dibromiodide, and chlorobromiodide (HANTZSCH), A., i, 94.
- tr*-bromo-, thiocyanate (HANTZSCH and HIRSCH), A., i, 429.
- p*-chloro-, chloride and thiocyanate (HANTZSCH and HIRSCH), A., i, 428, 429.
- p*-nitro-, perbromide, from *anti*-*p*-nitrodiazobenzenethiophenyl ether (HANTZSCH and FREESE), A., i, 218.
- dichloriodide, and chlorobromiodide (HANTZSCH), A., i, 94.
- p*-thiocyano-, chloride (HANTZSCH and HIRSCH), A., i, 429.
- Benzenediazosulphonic acid, potassium salt (BAMBERGER and KRAUS), A., i, 611.
- Benzene-6 : 1-diazoxide, 2 : 4-bromonitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1327; P., 1896, 164.
- 4-nitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1328.
- Benzene-*o*-dicarboxylic chloride. See Phthalic chloride.
- Benzene-*o*-dioxime. See *o*-Quinonedioxime.
- Benzene-*m*-disulphonic acid, calcium salt of (SNAPE), T., 100.
- Benzene-*p*-disulphonic acid, calcium salt of (SNAPE), T., 100.
- Benzeneindone. See Aposafraanine and also Anilidoaposafranine.
- Benzeneindonehydrate. See Hydroxyaposafranine.
- Benzenesulphinic acid, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- sodium salt of, action of stilbene dibromide, and  $\alpha$ - and  $\beta$ -tolane dibromide on (OTTO), A., i, 242.
- Benzenesulphonamide, diacetyl derivative of (PILOTY), A., i, 556.



- Benzenesulphonamide, *di*bromo- (KASTLE, KEISER, and BRADLEY), A., i, 555.  
*p*-bromocyano- (KREIS), A., i, 48.  
*p*-chloro-, *di*bromide (KASTLE), A., i, 172.  
*di*chloro- (KASTLE, KEISER, and BRADLEY), A., i, 555.  
*p*-chloro*di*bromo- (KASTLE, KEISER, and BRADLEY), A., i, 555.  
*di*chloro-*p*-bromo- (KASTLE, KEISER, and BRADLEY), A., i, 555.  
*p*-cyano- (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 373.
- Benzenesulphonasparagine, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- Benzenesulphonebenzylhydroxylamine (PILOTY), A., i, 556.
- Benzenesulphoneglycocine, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- Benzenesulphonephenylhydroxylamide (PILOTY), A., i, 556.
- Benzenesulphonepiperidine (FRANCHIMONT and TAVERNE), A., i, 603.
- Benzenesulphonic acid, *di*amino- (ZINCKE), A., i, 169.  
 5 : 2-bromocyano-, and salts (KREIS), A., i, 48.  
*p*-cyano-, and salts (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 373.  
*p*-nitrosophenylic salt (BÖRNSTEIN), A., i, 542.
- Benzenesulphonic chloride, magnetic rotatory power, &c., of (PERKIN), T., 1123, 1205, 1244.  
 condensation of, with piperazine (ROSDALSKY), A., i, 257.  
 5 : 2-bromocyano- (KREIS), A., i, 48.  
*p*-cyano- (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 372.
- Benzenesulphonic methylamide, action of nitric acid on (FRANCHIMONT), A., i, 602.
- Benzenesulphonylhydroxylamide, its salts and diacetyl derivative (PILOTY), A., i, 555.
- Benzenesulpho-*o*-toluidide, *p*-cyano- (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 373.
- Benzenesulpho-*m*-toluidide, *p*-cyano- (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 373.
- Benzenesulpho-*p*-toluidide, *p*-cyano- (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 373.
- Benzenyl-*o*-aminothiophenol, preparation of (HOFMANN LECTURE), T., 712.
- Benzenylaminoxime, ethylenic ether (WERNER and GEMESEUS), A., i, 431.
- Benzenylaminoxime, *o*-amino-, and its salts (PINNOW and SÄMANN), A., i, 366.  
*di*bromo-, ethylenic ether (WERNER and GEMESEUS), A., i, 431.  
*di*chloro-, ethylenic ether (WERNER and GEMESEUS), A., i, 431.
- Benzenylazoximethenyl, *o*-amino-, and its hydrochloride and acetyl derivative (PINNOW and SÄMANN), A., i, 367.
- Benzerythrene. See *p*-Bidiphenyl.
- Benzethylamide, *m*-nitro-*o*-amino- (KRATZ), A., i, 365.
- Benzethyleneamide, *m*-nitro-*o*-amino- (KRATZ), A., i, 365.
- Benzhydrazide, action of diazobenzene on (CURTIUS), A., i, 339.  
*m*-amino-, its hydrochloride and benzylidene derivative (STRUVE and RADENHAUSEN), A., i, 36.  
*o*-bromo- (STRUVE and RADENHAUSEN), A., i, 36.  
*m*-nitro-*o*-amino- (KRATZ), A., i, 365.
- Benzhydrol, *o*-amino-, and its acetyl derivative (GABRIEL and STELZNER), A., i, 506.
- Benzhydrol ether, preparation of (KLINGER and LONNES), A., i, 686.
- Benzidine. See Aniline.
- Benzidine, preparation of (LÖB), A., i, 605.  
 estimation of (VAUBEL), A., ii, 507.
- Benzil, refraction equivalent of (ANDERLINI), A., ii, 229.  
 condensation of, with acetonedicarboxylic acid (JAPP and LANDER), P., 1896, 109.  
 condensation of, with ethylic acetoacetate (JAPP and LANDER), T., 736; P., 1895, 146.  
 condensation of, with levulinic acid (JAPP and MURRAY), P., 1896, 146.  
 condensation of, with phenylethylenediamine (FEIST and ARNSTEIN), A., i, 258.  
 condensation of, with thiophenol (TROEGER and EGGERT), A., i, 562.
- Benzilic acid (*diphenylglycollic acid*), action of sulphuric acid on (KLINGER and LONNES), A., i, 374.
- Benzimidooethyl ether (BUSHONG), A., i, 546.
- Benzimidomethyl ether (BUSHONG), A., i, 546.
- Benzo- $\alpha$ -hydroxy- $\alpha\beta$ -diphenylethylamine (SÖDERBAUM), A., i, 484.
- Benzobiuret (OSTROGOVITCH), A., i, 530.
- Benzobutylamide,  $\gamma$ -chloro- (LUCHMANN), A., i, 545.

- Benzocyanethenylamidoxime (SCHMIDT-MANN), A., i, 458.
- Benzo-4-chloro-1 : 3 : 5-xyleneamide (KLAGES), A., i, 291.
- Benzodibenzylhydrazide (CURTIUS and QUEDENFELDT), A., i, 29.
- Benzo-2 : 4-dichloranilide (WHEELER and BOLTWOOD), A., i, 478.
- Benzodichloro-1 : 3 : 5-xyleneamide (KLAGES), A., i, 291.
- Benzodiethylthiourea (DIXON), T., 1604; P., 1896, 224.
- Benzoformanilide (WHEELER and BOLTWOOD), A., i, 478.
- Benzoformo-2 : 4-dichloranilide (WHEELER and BOLTWOOD), A., i, 478.
- Benzoform-o-toluidide (WHEELER and BOLTWOOD), A., i, 478.
- Benzoic acid, heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.
- influence of pressure on the freezing point of a benzene solution of (COLSON), A., ii, 157.
- absorption by silk of dilute (WALKER and APPEYARD), T., 1346; P., 1896, 147.
- Benzoic acid, alkali salts of, estimation of (REBIÈRE), A., ii, 396.
- ammonium salt and thermochemical data of the amide of (RIVALS), A., ii, 410.
- anthraflavic acid salt of (HOFMANN LECTURE), T., 633.
- allylic, butylic, *iso*-butylic, ethylic, methylic, octylic, propylic, and *iso*-propylic salts of, magnetic rotatory powers, &c., of the (PERKIN), T., 1073-1078, 1094, 1125, 1141, 1173-1175, 1226, 1237, 1238, 1247.
- amyllic and ethylic salts, molecular volumes in organic solvents of, the (NICOL), T., 1413; P., 1895, 237.
- 5-bromo-2-hydroxybenzylideneacetone salt of, (KOSTANECKI and SCHNEIDER), A., i, 614.
- 2-chloro-4-nitrophenol salt of (MELDOLA, WOOLCOTT, and WRAY), T., 1328; P., 1896, 164.
- 2-chloro-5-nitro-phenol salt of (MELDOLA, WOOLCOTT, and WRAY), T., 1326; P., 1896, 163.
- 4-chloro-3-nitrophenol salt of (MELDOLA, WOOLCOTT, and WRAY), T., 1323; P., 1896, 163.
- guaiacol salt of (MELDOLA), P., 1896, 126, 127; (BRÜGGEMANN), A., i, 356.
- detection of (DRAGENDORFF), A., ii, 278.
- hydroxymethylenephenylacetic acid, salt of (WISLICENUS), A., i, 553.
- Benzoic acid,  $\beta$ -naphthyllic salt of, detection of (DRAGENDORFF), A., ii, 279.
- nitramino-thymylic salt of (SODER), A., i, 359.
- m*-nitro-benzeneazoguaiacol salt of, (MELDOLA, WOOLCOTT, and WRAY), T., 1333.
- o*-nitroguaiacol salt of, [OBz : OME : NO<sub>2</sub> = 1 : 2 : 6] (MELDOLA), P., 1896, 127.
- p*-nitroguaiacol salt of, [OBz : OME : NO<sub>2</sub> = 1 : 2 : 4] (MELDOLA), P., 1896, 127.
- phenylhydroxystyrylketone salt of (HARRIES and RUSSE), A., i, 302.
- tolyllic salts, detection of (DRAGENDORFF), A., ii, 280.
- Benzoic acid, *o*-amino-. See Anthranilic acid.
- m*-amino-, action of chloroform and potash on (ELLIOTT), T., 1513; P., 1896, 171.
- action of sodium hypochlorite on (DE CONINCK), A., i, 364.
- condensation of with glyoxylic acid (BOETTINGER), A., i, 47.
- p*-amino-, decomposition of, with sodium hypochlorite (CONINCK), A., i, 364.
- condensation of, with glyoxylic acid (BOETTINGER), A., i, 47.
- 2 : 5-*di*amino-, ethylic salt of, and its hydrochloride and sulphate (HAUSERMANN and ZEICHMANN), A., i, 170.
- p*-bromo-, ethylic salt of (BÖTTINGER), A., i, 372.
- p*-bromo-*o*-iododichloride (HIRTZ), A., i, 532.
- 4 : 3 : 5-bromodinitro- (JACKSON and ITTNER), A., i, 214.
- o*-chloro-, and its potassium and ammonium salts, thermochemical data of (RIVALS), A., ii, 409.
- o*-chloro-*o*-nitro- (VAN LOON and MEYER), A., i, 434.
- o*-fluoro-*o*-nitro- (VAN LOON and MEYER), A., i, 434.
- o*-iodo- (PATTERSON), T., 1007.
- action of bromine on (HIRTZ), A., i, 532.
- m*-iodo- (PATTERSON) T., 1003.
- action of bromine on (HIRTZ), A., i, 532.
- p*-iodo-, action of bromine on (HIRTZ), A., i, 531.
- o*-iodoso-, sodium salt of, preparation of (HIRTZ), A., i, 532.
- o*-nitro-, heat of combustion of (MATIGNON and DELIGNY), A., ii, 88.

- Benzoic acid, *o*-nitro-, freezing points of dilute solutions of (WILDERMANN), A., ii, 351.  
 reduction of (LÖB), A., i, 533.  
*m*-nitro-, heat of combustion of (MATIGNON and DELIGNY), A., ii, 88.  
*p*-nitro-, heat of combustion of (MATIGNON and DELIGNY), A., ii, 88.  
 dinitro-derivatives of (VAUBEL), A., i, 646.  
 2 : 3-dinitro-, and its barium salt (GRELL), A., i, 95.  
 2 : 4 : 6-trinitro- (MEYER), A., i, 434.  
 action of hydrochloric acid on (BRUYN and VAN LEENT), A., i, 605.  
 action of soda on (MEYER), A., i, 419.  
 potassium methoxide, derivative of (LEENT), A., i, 614.  
 new acid obtained by action of caustic potash on, and its salts (LEENT), A., i, 615.  
 etherification of (MEYER), A., i, 547.  
 4 : 3-nitramino- (ZINCKE and HELMERT), A., i, 548.  
*o*-nitroso- (FISCHER), A., i, 696.  
 thio-, ammonium salt of (BUSCH and STERN), A., i, 677.  
 thionamide (SCHENCK), A., i, 427.  
 dithio- (SCHENCK), A., i, 427.  
 Benzoic anhydride, refraction equivalent of (ANDERLINI), A., ii, 229.  
 Benzoic chloride, magnetic rotatory power, &c., of (PERKIN), T., 1121, 1205, 1244.  
 action of lead thiocyanate on (DIXON), T., 1603.  
*o*-chloro-, thermochemical data of (RIVALS), A., ii, 409.  
 Benzoic cyanide, thermochemical data of (GUINCHANT), A., ii, 465.  
 trimolecular (NEF), A., i, 74.  
 Benzoic fluoride (MESLANS and GIRARDET), A., i, 346.  
 Benzoic peroxide and action of phenylhydrazine on (VANINO and THIELE), A., i, 597.  
 Benzoic bisulphide, action of alcoholic ammonia on (BUSCH and STERN), A., i, 677.  
 Benzoisulphinide (KREIS), A., i, 49.  
 acetyl derivative of (ECKENROTH and KOEPPEN), A., i, 438.  
*p*-bromo- (KREIS), A., i, 48.  
 Benzo- $\beta$ -iodethylamide (GABRIEL and STELZNER), A., i, 121.  
 Benzoin, condensation of, with benzamidine (KULISCH), A., i, 627.  
 Benzoindicarboxylic acid, diamino-, and its osazone (ELLIOTT), T., 1517; P., 1896, 171.  
 Benzoinoxime, reduction of (ERLENMEYER), A., i, 305.  
 Benzoimethylamide, *m*-nitramino- (KRATZ), A., i, 365.  
 Benzomethylamide, nitro-, action of nitric acid on (FRANCHIMONT), A., i, 602.  
 Benzomethylisocamylamide. See Methylisocamylamine, benzoyl derivative.  
 Benzo-*p*-methylbenzylamide (LUSTIG), A., i, 163.  
 Benzomethylisobutylamide. See Methylisobutylamine, benzoyl derivative.  
 Benzonitrile (LACHMANN), A., i, 601.  
 preparation of (LUXMOORE), T., 189; (HOFMANN LECTURE), T., 705.  
 from magnesium nitride and benzoic anhydride (EMMERLING), A., i, 591.  
 synthesis of (DESGREZ), A., i, 419.  
 magnetic rotatory power, &c., of (PERKIN), T., 1096, 1206, 1244.  
 melting point of (v. SCHNEIDER), A., ii, 290.  
 Benzonitrile, amino-, acetyl and benzoyl derivatives of (PINNOW and SÄMANN), A., i, 366.  
 nitro-, reduction of (HOFMANN LECTURE), T., 709.  
 Benzo-*m*-nitro-*p*-methylbenzylamide (LUSTIG), A., i, 163.  
 Benzophenone, preparation of (COMSTOCK), A., i, 613; (KONOWALOFF), A., i, 675.  
 magnetic rotatory power, &c., of (PERKIN), T., 1064, 1091, 1093, 1201, 1243.  
 action of zinc dust on (LOHSE), A., i, 619.  
 action of ethylic orthoformate on (CLAISSEN), A., i, 464.  
*o* amino- (GRAEBE and ULLMANN), A., i, 556.  
 Benzophenone-oxime, preparation of (KONOWALOFF), A., i, 675.  
*o*-amino-, acetyl derivative of (AUWERS and EWING), A., i, 504.  
 Benzophenylethylenediamine (GABRIEL and STELZNER), A., i, 121.  
 Benzophenylhydrazide (VANINO and THIELE), A., i, 597.  
 Benzophenylbenzylidenehydrazone (WALTHER), A., i, 543.  
 Benzophenyl-*o*-nitrobenzylidenehydrazone (WALTHER), A., i, 542.  
 Benzophenyl-*m*-nitrobenzylidenehydrazone (WALTHER), A., i, 542.

- Benzophenyl-*p*-nitrobenzylidenehydrazine (WALTHER), A., i, 542.
- $\alpha$ -Benzophenylsemicarbazide (WIDMAN), A., i, 630.
- Benzophenylpropylenediamine (GABRIEL and STELZNER), A., i, 121.
- Benzopinacolines,  $\alpha$ - and  $\beta$ - (LOHSE), A., i, 620; (KLINGER and LONNES), A., i, 687.
- Benzoquinone. See Quinone.
- Benzosol. See Benzoic acid, guaiacol salt of.
- Benzothiazolecarboxylic acid, preparation of (HOFMANN LECTURE), T., 713.
- Benzothiocarbinide, and the action of diethylamine on (DIXON), T., 1603; P., 1896, 224.
- Benzo-*m*-toluamide. *m*-nitro- (LIMPRICHT and FALKENBERG), A., i, 43.
- Benzovertatrylamide (MOUREU), A., i, 426.
- Benzovinylamide (GABRIEL and STELZNER), A., i, 121.
- 2-Benzoylbenzylidenacetone, 5-bromo-. See Benzoic acid, 2-hydroxybenzylidenacetone salt of, 5-bromo-.
- Benzoxo-3 : 2-diethylaminotetrahydronaphthalene and its picrate (BAMBERGER and LODTER), A., i, 99.
- Benzoxo-3 : 2-dimethylaminotetrahydronaphthalene (BAMBERGER and LODTER), A., i, 99.
- 3 : 1 : 5-Benzoxophenylisobutyltriazole (WIDMAN), A., i, 630.
- Benzoyl groups, estimation of (MEYER), A., ii, 226.
- Benzoylacethydroxamic acid (NEF and JONES), A., i, 460.
- Benzoylactic acid, action of ethylic orthoformate on (CLAISEN), A., i, 464.
- ethylic salt, magnetic rotatory power, &c. (PERKIN), T., 1064, 1178, 1238.
- ammonia additive product of (GOLDSCHMIDT), A., i, 231.
- condensation of, with *o*-ethylic chlorofumarate (RUHEMANN and WOLFF), T., 1384; P., 1896, 166.
- Benzoylacetylmethane. See Dibenzoylacetylmethane.
- Benzoylalanine, heat of combustion of (STOCHMANN and SCHMIDT), A., ii, 466.
- Benzoylallophanic acid, ethylic salt of (VON PECHMANN and VANINO), A., i, 33.
- action of ammonia on (OSTROGOVICH), A., i, 530.
- Benzoylammoresinotannol (LUZ), A., i, 249.
- Benzovlazoimide (CURTIUS), A., i, 34, 340.
- m*-amino- (STRUVE and RADENHAUSEN), A., i, 36.
- o*-nitro- (STRUVE and RADENHAUSEN), A., i, 35.
- m*-nitro- (STRUVE and RADENHAUSEN), A., i, 35.
- and its salts (KRATZ), A., i, 364, 365.
- p*-nitro- (STRUVE and RADENHAUSEN), A., i, 35.
- Benzoylbebirine, formation and properties of (SCHOLTZ), A., i, 710.
- p*-Benzoylbenzamide, *m*-nitro- (LIMPRICHT and LENZ), A., i, 41.
- Benzoylbenzanilide (HALLER), A., i, 33.
- Benzoylbenzoic acid (HALLER), A., i, 32.
- behaviour towards phenylic isocyanate of (HALLER), A., i, 32.
- p*-Benzoylbenzoic acid, *m*-amino-, and salts (LIMPRICHT and LENZ), A., i, 41.
- p*-amino- (LIMPRICHT and SAMIETZ), A., i, 42.
- m*-nitro-, and salts (LIMPRICHT and LENZ), A., i, 41.
- p*-nitro-, and its salts (LIMPRICHT and SAMIETZ), A., i, 42.
- p* Benzoylbenzoic chloride, *m*-nitro- (LIMPRICHT and LENZ), A., i, 41.
- p*-nitro- (LIMPRICHT and SAMIETZ), A., i, 42.
- p*-Benzoyl-*p*-benzoylbenzoic acid, *m*-nitro- (LIMPRICHT and LENZ), A., i, 42.
- p*-nitro-, and sodium salt (LIMPRICHT and SAMIETZ), A., i, 42.
- Benzoylbenzyl methyl ketone, oxime of (KOLB), A., i, 577.
- $\beta$ -Benzoyl- $\alpha$ -benzylpropionic acid,  $\alpha$ -cyanomethyl salt (KLOBB), A., i, 126.
- Benzoyl-*p*-bromobenzoylacetylmethane and its copper derivative (CLAISEN and FALK), A., i, 558.
- Benzoylcannabinol (WOOD, SPIVEY, and EASTERFIELD), T., 545; P., 1896, 76.
- Benzoylcarbazole, tribromo- (MAZZARA and LEONARDI), A., i, 393.
- chlorobromo- (LAMBERTI-ZANARDI), A., i, 304.
- $\alpha$ -dichlorodibromo- (LAMBERTI-ZANARDI), A., i, 305.
- $\beta$ -dichlorodibromo- (LAMBERTI-ZANARDI), A., i, 305.
- chloronitro- (LAMBERTI-ZANARDI), A., i, 651.
- Benzoylchironol (BAUR), A., i, 57.

- $\beta$ -Benzoylcinnamic acid. See Desylene-acetic acid.
- $\alpha$ -Benzoylcoumarone (RAP), A., i, 303.  
substance derived from, by the action of hydroxylamine (RAP), A., i, 303.
- $\alpha$ -Benzoylcoumaronehydrazone (RAP), A., i, 303.
- $\alpha$ -Benzoylcoumarone-oxime (RAP), A., i, 303.
- Benzoyldiacetylmethane: benzoate of its anilide (CLAISEN and FALK), A., i, 559.
- Benzoyldiduroquinone (RÜGHEIMER and HANKEL), A., i, 688.
- Benzoyl- $\alpha$ -ecgonine, formation of (WILLSTÄTTER), A., i, 708.
- p*-Benzoyl-*o*-ethoxybenzoic acid and its ethylic salt (LIMPRICHT), A., i, 435.
- Benzoylethylnitrolic acid (NEF and JONES), A., i, 460.
- $\beta$ -Benzoyl- $\alpha$ -ethylpropionic acid,  $\alpha$ -cyanoethylic salt (KLOBB), A., i, 126.
- $\beta$ -Benzoylglutaric acid, preparation of (EMERY), A., i, 436.
- Benzoylglyceric acid, active, rotatory power of the methylic and ethylic salts of (FRANKLAND and MACGREGOR), T., 112; P., 1896, 10.
- Benzoylglyceric acid, inactive, methylic salt of (FRANKLAND and MACGREGOR), T., 113; P., 1896, 10.
- Benzoylglyceric- $\beta$ -naphthalide (GASSMANN), A., i, 488.
- Benzoylglycollic- $\alpha$ -naphthalide (GASSMANN), A., i, 487.
- Benzoylglycollic- $\beta$ -naphthalide (GASSMANN), A., i, 487.
- Benzoylguaiacol. See Benzoic acid, guaiacol salt of.
- Benzoylhydrazonacetoacetic acid, ethylic salt of (CURTIUS), A., i, 39.
- m*-nitro-, ethylic salt of (CURTIUS), A., i, 39.
- Benzoylhydrazonepyruvic acid (VON PECHMANN), A., i, 680.
- Benzoyl-*p*-hydroxyazobenzene, constitution and hydrolysis of (MC PHERSON), A., i, 28.
- Benzoyl- $\beta$  hydroxy- $\delta$ -methylpyromucic acid (KIERMAYER), A., i, 144.
- 1'-Benzoylindole-2'-carboxylic acid (REISSERT), A., i, 389.
- Benzoylleuvalochloral (HARRIOT), A., i, 519.
- Benzoylmesitylene, behaviour of, towards phenylhydrazine (BAUM), A., i, 222.
- Benzoylmethylantibenzhydroximic acid (WEENER and SUBAK), A., i, 431.
- Benzoylmethyl- $\alpha$ -ecgonine (WILLSTÄTTER), A., i, 708.
- Benzoylmethylic phenylic ether, oxime and phenylhydrazone of (FRITZ), A., i, 152.
- $\beta$ -Benzoyl- $\alpha$ -methylpropionic acid,  $\alpha$ -cyanomethylic salt (KLOBB), A., i, 126.
- Benzoylmethylresorcinol (KOSTANECKI and TAMBOR), A., i, 44.
- diacetate (KOSTANECKI and TAMBOR), A., i, 44.
- dibenzoate (KOSTANECKI and TAMBOR), A., i, 44.
- methyl ether (KOSTANECKI and TAMBOR), A., i, 44.
- methyl ether, monacetate (KOSTANECKI and TAMBOR), A., i, 44.
- Benzoyl-3-methyl-5-*isobutyl*- $\Delta_2$ -cyclohexenone (KNOEVENAGEL), A., i, 211.
- Benzoyl-3-methyl-5-*isobutyl*- $\Delta_2$ -cyclohexenone-4-carboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 211.
- Benzoyl-3-methyl-5-*isobutyl*- $\Delta_2$ -cyclohexenone-6-carboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 211.
- Benzoyl-3-methyl-5-*isobutyl*- $\Delta_2$ -cyclohexenone-4:6-dicarboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 211.
- Benzoyl-3-methyl-5-hexyl- $\Delta_2$ -cyclohexenone-4-carboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 211.
- Benzoyl-3-methyl-5-hexyl- $\Delta_2$ -cyclohexenone-6-carboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 211.
- Benzoyl-3-methyl-5-hexyl- $\Delta_2$ -cyclohexenone-4:6-dicarboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 211.
- Benzoylnaphthylphenylcarbazole (SCHOPFF), A., i, 244.
- h*-Benzoylnortropinonoxime (WILLSTÄTTER), A., i, 582.
- Benzoyloxyacanthine (POMMERHNE), A., i, 67.
- Benzoyloxygranatanine (CIAMICIAN and SILBER), A., i, 397.
- Benzoylpellotine (HEFFTER), A., i, 267.
- Benzoylphenofluorindine (KEHRMANN and BÜRGIN), A., i, 513.
- o*-Benzoylphenol. See *o*-Hydroxybenzophenone.
- Benzoylbis-1:2:3-phenylbenzoylmethylpyrazolone, identity of, with dibenzoylbisphenylmethylpyrazolone (AUTENRIETH), A., i, 700.
- Benzoylphenylmethylphenofluorindine (KEHRMANN and BÜRGIN), A., i, 512.
- $\beta$ -Benzoyl- $\beta$ -phenylpropionic acid. See Desylacetic acid.

- 3-Benzoylphthalic acid and its ethylic salt (GRAEBE and LEONHARDT), A., i, 437.
- 3-Benzoylphthalic anhydride (GRAEBE and LEONHARDT), A., i, 437.
- 2-Benzoylisophthalic acid (GRAEBE and LEONHARDT), A., i, 437.
- $\beta$ -Benzoylpropionic acid and its identity with phenylacetic acid (KLOBB), A., i, 126.
- $\alpha$ -cyano- (KLOBB), A., i, 126.
- Benzoylsagaresinotannol (HORENADÉL), A., i, 58.
- p*-Benzoylsalicylic acid and its salts (LIMPRICHT), A., i, 435.
- ethylic salt, benzoic derivative of (LIMPRICHT), A., i, 435.
- m*-nitro-, and its ethylic salt (LIMPRICHT), A., i, 435.
- Benzoylsandaracolic acid (BALZER), A., i, 493.
- d*-Benzoylsantonous acid, ethylic salt of (ANDREOCCI), A., i, 183.
- l*-Benzoylsantonous acid and its ethylic salt (ANDREOCCI), A., i, 184.
- Benzoylsantonous acid, racemic, ethylic salt of (ANDREOCCI), A., i, 184.
- Benzoylsarcosine, heat of combustion of (STOHMANN and SCHMIDT), A., ii, 466.
- Benzoylscopoleine (MERCK), A., i, 65.
- Benzoyl-1 : 3 : 4 : 6-tetraphenyldihydropyridazine (SMITH and RANSOM), A., i, 322.
- Benzoyltetronic acid (WOLFF and SCHWABE), A., i, 523.
- Benzoyl-*o*-toluic acid, *m*-nitro-, and its salts (LIMPRICHT and FALKENBERG), A., i, 43.
- Benzoyl-*m*-toluic acids, *m*-nitro-, and its salts (LIMPRICHT and FALKENBERG), A., i, 43.
- Benzoyl-*m*-toluic chloride, *m*-nitro-, LIMPRICHT and FALKENBERG), A., i, 43.
- $\alpha$ -Benzoyltricarballic acid, ethylic salt of (EMERY), A., i, 436.
- $\beta$ -Benzoyltricarballic acid, ethylic salt of (EMERY), A., i, 436.
- Benzoyl- $\psi$ -tropine and its salts (WILLSTÄTTER), A., i, 452.
- n*-Benzoyltropigenine (WILLSTÄTTER), A., i, 582.
- Benzoyl- $\psi$ -tropigenine (WILLSTÄTTER), A., i, 655.
- n*-Benzoyl- $\psi$ -tropigenine, formation of (WILLSTÄTTER), A., i, 709.
- Benzoylurethane (VON PECHMANN and VANINO), A., i, 33.
- Benzoylvanillin (WÖRNER), A., i, 226.
- Benzoylveratrole (BRÜGGEMANN), A., i, 356.
- Benzoylveratrolephenylhydrazone (BRÜGGEMANN), A., i, 356.
- Benzoylxylan (BADER), A., i, 335.
- Benzyl methyl ketone, oxime of, and its acetyl and benzoyl derivatives (KOLB), A., i, 577.
- dioxime of, and its benzyl and dibenzyl ethers (KOLB), A., i, 577.
- Benzyl methyl oxide, magnetic rotatory power, &c., of (PERKIN), T., 1090, 1190, 1241.
- Benzylamine, magnetic rotatory power, &c., of (PERKIN), T., 1103, 1157, 1203, 1245.
- action of sulphur nitride on (SCHENCK), A., i, 427.
- condensation of, with 1 : 4-chloronitrobenzene (KNEHMANN and TIKHVINSKY), A., i, 511.
- Benzylamine, *o*-amino-, condensation of, with *m*-nitrobenzaldehyde, and *p*-hydroxybenzaldehyde (BUSCH), A., i, 509.
- condensation of, with salicylaldehyde (BUSCH), A., i, 508.
- 5-Benzylamino-1-benzyltetrazole: its hydrochloride, nitrate, sulphate, and nitrite, and its nitrosamine (THIELE and INGLE), A., i, 109.
- Benzylaminotetrazoles,  $\alpha$ - and  $\beta$ - (THIELE and INGLE), A., i, 109.
- Benzyl-*p*-aminophenetol (WENGHÖFFER), A., i, 360.
- Benzylaniline, magnetic rotatory power, &c., of (PERKIN), T., 1102, 1209, 1232, 1245.
- acetyl derivative of (BLACHER), A., i, 33.
- 4-nitro- (KEHRMANN and TIKHVINSKY), A., i, 511.
- Benzyl-*o*-anisidine, *o*-amino-, and its dihydrochloride (BUSCH, BRUNNER, and BIRK), A., i, 160.
- condensation of, with benzaldehyde (BUSCH), A., i, 507.
- o*-nitro- (BUSCH, BRUNNER, and BIRK), A., i, 160.
- Benzyl-*p*-anisidine, *o*-amino- (BUSCH and HARTMANN), A., i, 160.
- Benzyl-*o*-benzoisulphinide (ECKENROTH and KOERPPEN), A., i, 438.
- p*-nitro- (ECKENROTH and KOERPPEN), A., i, 438.
- Benzylbenzylidenbenzyltetrazylhydrazine (THIELE and INGLE), A., i, 109.
- Benzyl-*p*-bromaniline, *o*-amino-, salts of (BUSCH and HEINEN), A., i, 159.
- Benzylbromethylamine and its salts (GABRIEL and STELZNER), A., i, 702.
- Benzylcamphor, crystallography of (MINGUIN), A., i, 694.

- ab*-Benzylcarboxyethylthiocarbamide (DORAN), T., 327; P., 1896, 74.
- Benzyl-*o*-chloraniline, *o*-amino-, and its hydrochloride (BUSCH and BRUNNER), A., i, 157.
- o*-nitro-, and its hydrochloride (BUSCH and BRUNNER), A., i, 157.
- Benzyl-*m*-chloraniline, *o*-amino-, and its hydrochloride (BUSCH and FRANCIS), A., i, 158.
- o*-nitro- (BUSCH and FRANCIS), A., i, 158.
- Benzyl-*p*-chloraniline, *o*-amino-, and its hydrochlorides (BUSCH and VOLKENING), A., i, 158.
- o*-nitro-, salts of (BUSCH and VOLKENING), A., i, 158.
- $\beta$ -Benzylcrotonic acid,  $\beta$ -thio-, and its salts (AUTENRIETH), A., i, 617.
- $\beta$ -Benzylisocrotonic acid,  $\beta$ -thio-, and its salts (AUTENRIETH), A., i, 617.
- Benzyl-desmotroposantonin (ANDREOCCI), A., i, 182; (CASTORO), A., i, 307.
- Benzyl-desmotroposantonin (ANDREOCCI), A., i, 183.
- Benzyl-desmotroposantonous acid (ANDREOCCI), A., i, 185; (CASTORO), A., i, 307.
- Benzyl-dibromodiethylamine, hydrochloride of (GABRIEL and STELZNER), A., i, 702.
- Benzyl-dihydroxydiethylamine (GABRIEL and STELZNER), A., i, 702.
- Benzyl-dimethylamine, preparation of (HOFMANN LECTURE), T., 670.
- n*-Benzylethylene- $\psi$ -thiocarbamide, thiocyanate of (GABRIEL and STELZNER), A., i, 702.
- 1':3'-Benzylethylphthalazone (BROMBERG), A., i, 579.
- Benzylhydroxyethylamine and its salts (GABRIEL and STELZNER), A., i, 702.
- Benzyl alcohol, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1090, 1125, 1198, 1242.
- chloride, magnetic rotatory power, &c., of (PERKIN), T., 1120, 1203, 1243.
- cyanide. See Phenylacetoneitrile.
- hydrosulphide, *o*-nitro- (GABRIEL and STELZNER), A., i, 215.
- iodide, *p*-bromo- (HANTZSCH and SCHULTZE), A., i, 672.
- methyl sulphide, *o*-amino-, and its hydrochloride (GABRIEL and STELZNER), A., i, 216.
- o*-nitro- (GABRIEL and STELZNER), A., i, 215.
- sulphide, magnetic rotatory power, &c., of (PERKIN), T., 1124, 1204, 1244.
- Benzylidene diethyl ether, preparation of (BUSCH), A., i, 677.
- Benzylidenacenaphthenone-oxime (GRAEBE and JEQUIER), A., i, 444.
- Benzylideneacetamidoacetohydrazide (RADENHAUSEN), A., i, 138.
- Benzylideneacetoacetic acid (SCHIFF), A., i, 84.
- ethylic salt (KNOEVENAGEL), A., i, 232.
- action of hydroxylamine on (KNOEVENAGEL and RENNER), A., i, 189.
- oxime of, and its ammonium salt (KNOEVENAGEL and RENNER), A., i, 189.
- Benzylideneacetone. See Styryl methyl ketone.
- Benzylideneacetophenone. See Styryl phenyl ketone.
- Benzylideneaminoacetylthymol (?) (PLANCHER), A., i, 358.
- o*-Benzylideneaminobenzhydrazide, *m*-nitro- (KRATZ), A., i, 366.
- Benzylidene-*o*-aminobenzyl-*p*-bromaniline (BUSCH and HEINEN), A., i, 159.
- p*-nitro- (BUSCH and HEINEN), A., i, 159.
- Benzylidene-*o*-aminobenzyl-*p*-bromophenylhydrazine (BUSCH and HEINEN), A., i, 160.
- Benzylidene-*o*-aminobenzyl-*p*-chloraniline (BUSCH and VOLKENING), A., i, 158.
- m*-nitro- (BUSCH and VOLKENING), A., i, 158.
- Benzylidene-*o*-aminobenzyl-*p*-chlorophenylhydrazine (BUSCH and VOLKENING), A., i, 159.
- Benzylidine-*o*-aminobenzyl-*p*-phenetidine (BUSCH and HARTMANN), A., i, 160.
- Benzylideneaminophenylimido- $\beta$ -butyric acid, *p*-nitro-, ethylic salt of (HINSBERG and KOLLER), A., i, 537.
- Benzylideneaminothymol and its acetyl derivative (PLANCHER), A., i, 358.
- Benzylideneanhydroglyceogallol and its diethyl ether (KESSELKAU and KOSTANECKI), A., i, 606.
- Benzylideneaniline (BARSILOWSKY), A., i, 358.
- nitro- (BARSILOWSKY), A., i, 358.
- Benzylideneanilinoacetohydrazide (RADENHAUSEN), A., i, 138.
- Benzylideneazine, tetrabromide and dihydrobromide of (CUETIUS and QUEDENFELDT), A., i, 29.
- $\alpha$ -Benzylidenebenzyltetrazylhydrazine and its hydrochloride (THIELE and INGLE), A., i, 109.

- $\beta$ -Benzylidenebenzyltetraazylhydrazine (THIELE and INGLE), A., i, 110.
- Benzylidenebisacetonedicarboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 212.
- Benzylidenebismethylcarbamide (SCHIFF), A., i, 529.
- Benzylidenebiuret and the action of alkalis and alkylid iodides on (SCHIFF), A., i, 529.
- Benzylidenediacetonominoxime (HARRIES), A., i, 318.
- Benzylidenediacetophenone (v. KOSTANECKI and ROSSBACH), A., i, 556.
- Benzylidenediaminopentamethylenetetramine, di-*m*-nitro- (DUDEN and SCHARFF), A., i, 123.
- Benzylidene- $\beta$ -dibenzyltetraazylhydrazine (THIELE and INGLE), A., i, 109.
- Benzylidenedicarbamide, and the action of heat on (SCHIFF), A., i, 529.
- Benzylidene-ethylbiuret (SCHIFF), A., i, 529.
- Benzylidene-eucaryone (WALLACH), A., i, 573.
- Benzylidenehydrazinoisobutyric acid (THIELE and HEUSER), A., i, 340.
- Benzylidenehydrazinecarboxylic acid, ethylic salt (THIELE and LACHMANN), A., i, 208.
- Benzylidenenimide, salts of (BUSCH), A., i, 677.
- Benzylideneketopentamethylene. See Benzylidenecyclopentanone.
- Benzylidenelactamide (FISCHER), A., i, 263.
- Benzylidenementhone hydrochloride, hydrobromide, and oxime (WALLACH), A., i, 573.
- Benzylidenemethylbiuret (SCHIFF), A., i, 529.
- Benzylidenemethylhexenone, oxime of (WALLACH), A., i, 572.
- 4-Benzylidene-5-methylketoisooxazolone (SCHIFF), A., i, 83.  
action of alkalis on (SCHIFF), A., i, 83, 84.
- Benzylmethylnitramine (FRANCHIMONT and VAN ERP), A., i, 298.  
*o*-nitro- (FRANCHIMONT and VAN ERP), A., i, 298.  
*p*-nitro- (FRANCHIMONT and VAN ERP), A., i, 298.
- $\beta$ -Benzylidene- $\gamma$ -methylisooxazolone (KNOEVENAGEL and RENNER), A., i, 189.
- Benzylidene-1 : 2-naphthylenediamine (HINSBERG and KOLLER), A., i, 537.
- Benzylidenecyclopentanone (VORLÄNDER and HOBOHM), A., i, 604.
- Benzylidene-*o*-phenylenediamine (HINSBERG and KOLLER), A., i, 536.
- Benzylidenepulegone (WALLACH), A., i, 573.
- 4-Benzylidenepyrazolone (KNORR), A., i, 260.
- Benzylidenetriacetophenone (v. KOSTANECKI and ROSSBACH), A., i, 557.
- Benzylidine, cyano-. See 5-Phenyl-2 : 6-dibenzyl-*m*-diazine, 4-amino-.
- Benzylisodesmotroposantonin (ANDREOCCI), A., i, 183.
- Benzylmalonic acid, ethylic salt, hydrolysis of (HJELT), A., i, 205.  
*o*-nitro-, and its hydrolysis (REISSERT), A., i, 389.  
ammonium salts (REISSERT), A., i, 389.  
ethylic salt of (REISSERT), A., i, 371.
- 1' : 3'-Benzylmethylphthalazone (BROMBERG), A., i, 579.
- Benzylmorpholine and its hydrochloride and salts (GABRIEL and STELZNER), A., i, 702.
- p*-Benzylxybenzaldehyde (WÖRNER), A., i, 225.  
 $\alpha$ -trithio- (WÖRNER), A., i, 226.  
 $\beta$ -trithio- (WÖRNER), A., i, 226.
- 5-Benzylxy-1-benzyltetrazole (THIELE and INGLE), A., i, 109.
- $\beta$ -Benzylxyerotic acid and its potassium salt (AUTENRIETH), A., i, 617.
- $\beta$ -Benzylxypropylene (AUTENRIETH), A., i, 617.
- Benzyl-*p*-phenetidine, *o*-amino-, and its salts (BUSCH and HARTMANN), A., i, 160.
- Benzylphenonaphthazone. See Benzylrosindone; Benzylrosinduline.
- Benzyl-*o*-phenylenediamine, condensation of, with acetamido-*a*-naphthaquinone and hydroxy-*a*-naphthaquinone (KEHRMANN and TIKHVINSKY), A., i, 511.
- Benzylphosphine, preparation of (HOFMANN LECTURE), T., 682.
- 1'-Benzylphthalimidine (BROMBERG), A., i, 579.
- $\beta$ -Benzylpropylene,  $\beta$ -thio- (AUTENRIETH), A., i, 617, 618.
- Benzylrosindone (KEHRMANN and TIKHVINSKY), A., i, 511.
- Benzylrosinduline (KEHRMANN and TIKHVINSKY), A., i, 511.  
chloride, acetyl derivative of (KEHRMANN and TIKHVINSKY), A., i, 511.
- l*-Benzylsantonous acid (ANDREOCCI), A., i, 184.
- Benzylsuccinimide (BLACHER), A., i, 33.  
velocity of decomposition by hydrochloric acid of (MIOLATI), A., ii, 242.



- Benzyl-*o*-sulphamidobenzoic acid and its salts (ECKENROTH and KOERPPEN), A., i, 438.
- p*-nitro-, and its potassium salt (ECKENROTH and KOERPPEN), A., i, 438.
- $\alpha$ -Benzyltetrazylhydrazine and its hydrochloride (THIRLE and INGLE), A., i, 110.
- Benzyl-*o*-toluidine, *o*-amino-, condensation of, with benzaldehyde (BUSCH), A., i, 507.
- Benzyl-*p*-toluidine, *o*-amino-, condensation of, with benzaldehyde (BUSCH), A., i, 507.
- Benzyltrimethylammonium chloride and hydroxide, action of heat on (HOFMANN LECTURE), T., 670.
- Benzylvinylamine (GABRIEL and STELZNER), A., i, 702.
- Berberamine, composition of (POMMEREHNE), A., i, 67.
- Berberine, salts of (POMMEREHNE), A., i, 67.
- Berberis aquifolium*, alkaloids of (POMMEREHNE), A., i, 67.
- Bergamot oil, analysis of (BÖRNTRAGER), A., ii, 228, 679.
- Bertholletia excelsa*, proteids of (OSBORNE and CAMPBELL), A., i, 716.
- Beryl, alkalis in (BENNEVILLE), A., ii, 186.
- from Limoges, fluorine in (LEBEAU), A., ii, 187.
- from New South Wales (LIVERSIDGE), A., ii, 657.
- Beryllium, preparation of (BORCHERS), A., ii, 521.
- preparation of, from emerald (WARREN), A., ii, 247.
- carbide (LEBEAU), A., ii, 169;
- (HENRY), A., ii, 169.
- oxide, preparation of, from emerald (LEBEAU), A., ii, 168.
- purification of (HART), A., ii, 168.
- niobate (LARSSON), A., ii, 564.
- separation of, from iron (ATKINSON and SMITH), A., ii, 220.
- Berzeliite (*kühnite*), composition of (SjÖGREN), A., ii, 113.
- Beta vulgaris*, diastatic ferment in (GONNERMANN), A., ii, 381.
- See also Agricultural chemistry. (Appendix.)
- Betaine, occurrence of, in *Vicia sativa* (SCHULZE), A., ii, 208.
- Betol. See Salicylic acid,  $\beta$ -naphthyllic salt of.
- Betula lenta*, existence of gaultherase in (BOURQUELOT), A., ii, 540.
- Betulase. See Gaultherin.
- p*-Bidiphenyl, preparation of, from *p*-bromodiphenyl; identification of with benzerythrene (NOYES and ELLIS), A., i, 51.
- Bidiphenylene-ethane, dinitro- (GRAEBE and STINDT), A., i, 565.
- Bidiphenylene-ethylene (*Tetraphenylene-ethylene*) (LOHSE), A., i, 619;
- (KLINGER and LONNES), A., i, 692.
- formation of, from fluorene (GRAEBE and VON MANTZ), A., i, 442.
- oxidation of (GRAEBE and VON MANTZ), A., i, 442.
- dibromide and dichloride (GRAEBE and VON MANTZ), A., i, 442.
- glycol and its acetate (GRAEBE and STINDT), A., i, 566;
- (KLINGER and LONNES), A., i, 691.
- oxide (GRAEBE and STINDT), A., i, 566;
- (KLINGER and LONNES), A., i, 691.
- Bilberries, dye of (WEIGERT), A., i, 388.
- Bilberry juice, constituents of (NACKEN), A., ii, 495.
- Bile, urobilin from human (GARROD and HOPKINS), A., i, 712.
- Bilirubin, absorption spectrum of (GAMGEE), A., i, 714.
- action of, on iodine (THUDICHUM), A., i, 516.
- Bimolecular reactions. See Reactions.
- Biotite from Japan (KOTŌ), A., ii, 39.
- from the Plomb du Cantal (FOUQUÉ), A., ii, 533.
- altered, from Styria (CANAVAL), A., ii, 483.
- alteration of, to Caswellite (CHESTER), A., ii, 309.
- Birotation. See Light.
- Bisethylbenzoylcarbinol (FRITZ), A., i, 152.
- Bishydroxytetrahydronaphthylamine hydrochloride, aurochloride, and platinochloride (BAMBERGER and LODTER), A., i, 100.
- Bismuth, electrical resistance of, at low temperatures (DEWAR and FLEMING), A., ii, 5.
- rate of diffusion of, in mercury (HUMPHREYS), T., 251; P., 1896, 9.
- Bismuth bromide, action of air and nitric peroxide on (THOMAS), A., ii, 527.
- chloride, action of nitric peroxide on (THOMAS), A., ii, 429.
- dichloride, action of air or nitric peroxide on (THOMAS), A., ii, 527.
- iodide, action of air or nitric peroxide on (THOMAS), A., ii, 527.
- sulphide, physical change produced by gently heating (SPRING), A., ii, 290.

- Bismuth, separation of, from metals of the copper and iron groups (JANNASCH and GROSSE), A., ii, 677.
- Bismuthite from Quebec (HOFMANN), A., ii, 259.
- Bisnitrosotetrahydrocarvone, oxime of (VON BAEYER), A., i, 248.
- Bisphenylmethylpyrazolone and its diacetyl, dibenzoyl, and disulphonyl derivatives (ATTENBIETH), A., i, 627, 700.
- Bisphenylpyrazolonecarboxylic acid, ethylic salt of (RUHEMANN), T., 1396; P., 1896, 166.
- bis*-Toluenediazouimide from *p*-diazotoluene anhydride (BAMBERGER), A., i, 299.
- Biuret, preparation of, from carbamide (SCHIFF), A., i, 634.  
and certain metallic derivatives of (SCHIFF), A., i, 284.  
action of mercuric nitrate on (SCHIFF), A., i, 634.  
potassium hydroxide and the action of copper acetate on it (SCHIFF), A., i, 634.  
sodium hydroxide (SCHIFF), A., i, 634.  
reactions of (SCHIFF), A., i, 284.
- Biuret-reaction, substances giving the (SCHIFF), A., i, 632, 634.
- Blende, alteration products of (CESÀRO), A., ii, 479.  
containing gallium and indium from New South Wales (KIRKLAND), A., ii, 183.
- Blood, causes of absorption of liquids into the (STARLING), A., ii, 438.  
effects of changes of osmotic pressure in (LEATHES), A., ii, 196.  
percentage of creatinine in (COLLS), A., ii, 666.  
presence of compounds of cholesterol in (HÜRTLE), A., ii, 485.  
influence of certain salts on the coagulation of (HORNE), A., ii, 437.  
antagonistic influence of certain salts on the coagulation of (RINGER), A., ii, 49.  
coagulability of, as influenced by peptone injections (STARLING), A., ii, 197.  
coagulability of, in albino animals (PICKERING), A., ii, 664.  
nature of fibrin-ferment of (PEKELHARING), A., ii, 488.  
gases of the, Lothar Meyer's investigations on the (BEDSON), T., 1410; P., 1896, 119.  
relation of, to respiratory movements (FILEHNE and KIONKA), A., ii, 118.
- Blood, formation of hæmoglobin in, from inorganic iron (KUNKEL), A., ii, 47.  
oxyhæmoglobin from horse's (JUTT), A., i, 584.  
oxidising powers of the (ABELOUS and BIARNES), A., ii, 119.  
a sugar-forming ferment present in the (BOURQUELOT and GLEY), A., ii, 119.  
sugar in the, diminished by ligaturing the intestinal arteries (TANGL and HARLEY), A., ii, 47.  
distribution of urea between corpuscles and plasma of (SCHÖNDORFF), A., ii, 375.  
alterations of, in anæmia (MORAC ZEWSKA), A., ii, 618.  
in potassium chlorate poisoning (BRANDENBURG), A., ii, 491.  
action of acetylene on (BROCINER), A., ii, 264.
- Blood, estimations of alcohol in the, during alcoholic poisoning (GRÉHANT), A., ii, 664.  
estimation of carbonic oxide in (HALDANE), A., ii, 52.  
estimation of colour of, by the colorimetric pipette (HOPPE-SEYLER and WINTERNITZ), A., ii, 552.  
estimation of colouring matter in (JUTT), A., i, 584.  
estimation of sugar in (REID), A., ii, 678.  
estimation of urea in (KAUFMANN), A., ii, 130; (SCHÖNDORFF), A., ii, 131.
- Blood-corpuscles, estimation of the number of (OLIVER), A., ii, 437.
- Blood-plasma, osmotic pressure of (KOEPE), A., ii, 376.
- Blood-serum, initial rate of osmosis of (BARLOW), A., ii, 664.
- Boiling point. See Heat.
- Boleite, artificial (FRIEDEL), A., ii, 32.  
from Broken Hill, N.S.W. (LIVERSIDGE), A., ii, 32.
- Boletus cyanescens*, oxidising ferment of (BOURQUELOT and BERTRAND), A., ii, 383.
- Bone, causes of brittleness of, in animals (KELLNER, KÖHLER, and BURNSTEIN), A., ii, 46.
- Boracite, formula of (KOSMANN), A., ii, 368.
- Borax. See Boron.
- Boric acid. See Boron.
- Borneol from oil of valerian (OLIVIERO), A., i, 492.  
from pinene (REYCHLER), A., i, 308.  
relation of, to isoborneol (JÜNGER and KLAGES), A., i, 313.

- iso*-Borneol, salt of, from camphene (REYCHLER), A., i, 308.
- Bornylic acetate in oil of *Abies canadensis* (UMNEY), A., i, 380.
- iso*-Bornylic acetate from camphene hydrochloride (JÜNGER and KLAGES), A., i, 313.
- chloride from *isoborneol* camphene (REYCHLER), A., i, 313.
- Borolanite from N. Scotland (TEALL and HORNE), A., ii, 117.
- Boron.
- Boric acid, occurrence of, in vegetable and animal products (JAY), A., ii, 327.
- amount of, in wine and in cider (JAY and DUPASQUIER), A., ii, 76.
- detection of (VILLIERS and FAYOLLE), A., ii, 75.
- detection of, apparatus for (DOHERTY), P., 1896, 101.
- estimation of (JAY and DUPASQUIER), A., ii, 76.
- estimation of, source of error in (GORGES), A., ii, 575.
- estimation of, volumetrically (BARTHE), A., ii, 337; (JÖRGENSEN), A., ii, 449.
- Borates in the Stassfurt Abraham salts (KOSMANN), A., ii, 368.
- Borax, effect of, on milk-curdling (ALLEN), A., ii, 489.
- Bouquet of wines, cause of the (MÜLLER), A., ii, 201.
- Bournonite from Broken Hill, N.S.W. (SMITH), A., ii, 30.
- Bran, dry distillation of, with lime (LAYCOCK), P., 1896, 38.
- Brassica rapa*, arginine in the tubers of (SCHULZE), A., ii, 383.
- Brassylic acid (SPIECKERMANN), A., i, 410.
- Brazilintrimethyle ether. See Trimethylbrazilin.
- Breath, estimation of acetone in (GEELMUYDEN), A., ii, 679.
- Breithauptite from Sardinia (LOVISO), A., ii, 183.
- Bricks, efflorescence on, exposed to sulphurous anhydride (PATERSON), T., 66; P., 1895, 203.
- Britannia-violet, discovery of (HOFMANN LECTURE), T., 618.
- Bromal hydrate, crystalline forms of (POPE), P., 1896, 142.
- Bromic acid. See Bromine.
- Bromine, absorption spectrum of solutions of, in carbon bisulphide vapour (WOOD), A., ii, 458.
- crystallisation of (ARCTOWSKI), A., ii, 17.
- Bromine, partition of, between salt solutions and carbon bisulphide and tetrachloride (JAKOWKIN), A., ii, 514.
- detection of, by dichlorobenzenesulphonamine (KASTLE), A., ii, 216.
- detection of, in organic compounds (RAIKOW), A., ii, 70.
- separation of, quantitatively from chlorine (BUGARSZKY), A., ii, 216.
- Hydrogen bromide, preparation of (KASTLE and BULLOCK), A., ii, 356.
- gaseous, action on salts of elements of the fifth group (SMITH and MEYER), A., ii, 165.
- action of sulphuric chloride on (BESSON), A., ii, 417.
- Bromides, effect of, on algæ (WYRELLE), A., ii, 266.
- estimation of, by potassium cyanide (DENIGÈS), A., ii, 386.
- Bromic acid, velocity of the reaction between hydriodic acid and (NOYES and SCOTT), A., ii, 158.
- Bromo-derivatives of aromatic hydrocarbons, action of, on lead salts of thiophenols (BOURGEOIS), A., i, 17.
- Bromo-derivatives. See also:—
- Acenaphthenone.
- Acetamide.
- Acetamidobenzene.
- Acetamidophenol.
- 1-Acetamidoquinoline.
- Acetanilide.
- Acetoacetic acid.
- Acetonyl-*o*-benzoisulphinide.
- Acetoxime.
- 1 : 2 : 4-Aceto-*m*-xyleneamide.
- Acetylcarbazole.
- Acetylmalic acid.
- Alizarin.
- Allylene.
- Allylthiocarbamide.
- Amylene and  $\beta$ -*iso*-Amylene.
- Anethoil and *iso*-Anethoil.
- Aniline.
- Anilinesulphonic acids.
- o*-Anisidine.
- Anisoil.
- Anthracene.
- Anthraquinones.
- Apiole and *iso*-Apiole.
- Apione.
- Benzoyaldoxime.
- Benzamidosulphonic acid.
- Benzene.
- Benzenediazonium.
- Benzenediazoxide.
- Benzenesulphonamide.
- Benzene-*o*-sulphonic acid, cyano-.
- Benzenyloxime.

**Bromo-derivatives.** See :—

Benzoic acid.  
 Benzoisulphinide.  
 Benzoylcarbazole.  
 Benzoylhydrazine.  
 Benzyl dibromodiethylamine.  
 Benzylethylamine.  
 Benzyl iodide.  
*iso*-Butylacetic acid.  
 Butylamine.  
 Butyric acid and *iso*-Butyric acid.  
 Butyroylmaleic acid and *iso*-Butyroyl-  
   maleic acid.  
 Camphenone.  
 Campholide.  
 Camphor.  
 Camphoric acid.  
 Camphoric anhydride.  
 Carbazole.  
 Cinnamic acids.  
 Citraconic acid.  
 Collidine.  
 $\psi$ -Cubebin.  
 $\psi$ -Cumenol.  
 Dehydrothiotoluidine.  
*m*-Diacetophenylenediamide.  
 Diazobenzene anhydride.  
 Diazobenzenephénylhydrazone-  
   methanedisulphonic acid.  
 Diazobenzenethiophenyl ethers.  
 Dibenzoylacetylethane.  
 Dibenzylhydantoin.  
 2 : 4-Diethoxyacetophenone.  
 Diethoxyxylenol.  
 2 : 4-Dihydroxyacetophenone.  
 Dihydroxyhexahydrocymenes.  
 Dibydroxytetramethylstilbene.  
 3 : 3-Dimethoxybenzophenone.  
 Dimethoxyquinone.  
 3 : 3-Dimethoxythiobenzophenone.  
 Dimethoxytriphenylmethanecarbo-  
   xylic acid.  
 Dimethoxyxylenol.  
 Dimethylaminodiphenazone.  
 Dimethylaniline.  
*m*- and *p*-Dimethylaniline-*m*-sulphonic  
   acids.  
 Dimethylbarbituric acid, nitro-.  
 Dimethylglutaric anhydride.  
 Dimethylmalonimide.  
 $\mu$ -Dimethylpenthiazoline.  
 Diphenacyl.  
 Diphenazone-*o*-hydroxycarboxylic  
   acid.  
 Diphenoxyquinone.  
 Diphenyldimethyltetrahydro- $\gamma$ -py-  
   rone.  
 Diphenylmethenylamidine.  
 4 : 5-Diphenyl-2 : 7-octanedione.  
 Diphenylparaconic acid.  
 Dipropylacetic acid.  
 Dipropylisopropyl alcohol.

**Bromo-derivatives.** See :—

Dithienyl.  
 Ethoxyanethoil.  
 2-Ethoxybenzylidenacetone.  
 Ethoxy- $\psi$ -cumenol.  
 $\mu$ -Ethoxy-penthiazoline.  
 Ethoxyxylenol.  
 Ethyl-*o*-benzoisulphinide.  
 Ethylene.  
 Ethylketole.  
 Ethylmestylene.  
*p*-Ethyltoluene.  
*p*-Ethyltoluenesulphonic acid.  
 Ethyltriethylphosphonium.  
 Fluorenone.  
 Formamidobenzene.  
 Formanilide.  
 Formazylsulphonic acid.  
 Fumaric acid.  
 Gallic acid.  
 Heptoic acids.  
 Hexadecylene.  
 Hexahydro-*p*-xylic acid.  
 Hexoic acids.  
 Hexylene.  
 Hippenylcarbanil.  
 Homopiperonylic acid.  
 Hydrindone.  
*p*-Hydroxybenzaldehyde.  
 Hydroxybenzaldoxime.  
 Hydroxybenzoic acid.  
*o*-Hydroxybenzophenone.  
 Hydroxybenzylidenacetone acetate  
   and Benzoate (under the respec-  
   tive acids).  
*o*-Hydroxybenzylidenediacetophenone.  
 Hydroxybenzylideneaniline.  
 Hydroxybenzylidenenaphthylamine.  
 Hydroxybenzylidenetoluidine.  
 Hydroxy- $\psi$ -cumenol.  
 Hydroxydimethylglutaric lactone.  
 Hydroxydiphenylaminocarboxylic  
   acid.  
 Hydroxynaphthadiphenazone.  
 Hydroxynaphthylhydroxyphenyl-  
   amine.  
 Hydroxyphenyl styryl ketone.  
 4-Hydroxy-5-phenyl-2 : 6-dibenzyl-  
   *m*-diazine.  
 Hydroxyquinolines.  
 Imidocarbonic acid.  
 Indophenazine.  
 Ketostearic acid.  
 $\beta$ -Lapachone.  
 Levulinic acid.  
 Luteolin.  
 Maleic acid.  
 Maleic anhydride.  
 Maleimide.  
 Maleinaml.  
 Malein-*p*-tolil.  
 Maleinuric acid.

Bromo-derivatives. See :—

Malonic acid.  
Menthone.  
Menthylamine.  
Meroquinene.  
Mesaconic acid.  
Mesitylene.  
Methane.  
Methanesulphonopropionic acid.  
Methoxy- $\psi$ -cumenol.  
Methoxyethoxypropylbenzene.  
 $\mu$ -Methoxypenthiiazoline.  
Methoxyphenyl ethyl ketone.  
Methoxyxylenol.  
Methyl hydroxyethyl ketone.  
Methylacetoacetic acid.  
Methylacetylene.  
Methylaniline.  
 $\alpha$ -Methylbutyric acid (valeric acid).  
Methylenecaffeic acid.  
 $u$ -Methylpenthiiazoline.  
Methylisopropylacetylene.  
Methyltaurocarbamic acid, chloro-.  
Methylisovaleric acid (hexoic acid).  
Morin.  
Myricetin.  
Naphthalene.  
Naphthaquinonecarboxylic acid.  
Naphthol.  
Naphthylaminopenthiiazolines.  
 $\alpha$ -Naphthyllic carbonates.  
*iso*-Narcotine.  
Opianic acid  $\beta$ -naphthylamine.  
Pentacetylmorin.  
Pentadecic acid.  
*cyclo*-Pentene.  
Penthiiazoline.  
Peonol.  
Phenol.  
Phenolphthalein.  
Phenyl- $\alpha$ -coumaryl ketone.  
Phenyl hydroxystyryl ketone.  
Phenyl tolyl ketones.  
Phenylaminobenzylhydrazine.  
Phenyldibenzyl-*m*-diazine.  
Phenyldihydro- $\beta$ -phenotriazine.  
4'-Phenyldihydroquinazoline.  
*m*-Phenylenediamine.  
Phenylenediurethane.  
Phenylic ethylic ether.  
Phenylic  $\gamma$ -bromopropylic ether.  
Phenylketotetrahydroquinazoline.  
Phenylmalonic acid.  
Phenylmethylaminopenthiiazoline.  
Phenylnitrobenzyluitrosamine.  
Phenylnitromethane.  
Phenylisonitromethane.  
Phenylthiotetrahydroquinazolines.  
Phthalic acid.  
Phthalic anhydride.  
*iso*-Phthalic acid.  
Pinic acid.

Bromo-derivatives. See :—

$\mu$ -Piperidylpenthiiazoline.  
Piperonylnitroacetone.  
Piperonylonitrile.  
Piperylenedicarboxylic acid.  
Propaneoxymethane.  
Propene.  
Propeneoxymethane.  
Propine.  
Propineoxymethane.  
Propionic acid.  
Propionylmalic acid.  
 $\mu$ -Propoxypenthiiazoline.  
Propylbenzene.  
Propylene.  
Propylenepseudothiocabamide.  
Propylmesitylene.  
1-Propylpiperidine,  $\gamma$ -.  
Propylthiocabimide.  
Propylthiourea.  
Propylvalerolactone.  
Protocatechuic acid.  
Pyridine.  
Pyroxanthine.  
Quinoline.  
Resacetophenone.  
Resorcinol.  
Resorcinol diethyl ether.  
Ricinin.  
Ricininic acid.  
Succinamic acid.  
Succinanil.  
Succinanilic acid.  
Succinic acid.  
Succino  $\beta$ -naphthilic acid.  
Succino-*p*-tolilic acid.  
Sulphamidobenzamide.  
3-Sulphamidobenzoic acid.  
Sulphobromobenzoic acid.  
Sulphochlorobenzoic acid.  
Terephthalic acid.  
Terpene.  
Tetracetyloluteolin.  
Tetrahydrocarvonebisnitrosylic acid.  
Tetrahydrocummic acid.  
Tetric acid.  
Tetriconic acid.  
Theophylline.  
Thienyltriphenylmethane.  
Thiocarbonylacetoacetic acid.  
Toluene.  
*o*- and *p*-Tolylaminopenthiiazolines.  
Tribenzaldehyde.  
Tribenzoylmethane.  
Trimethylethylammonium.  
Trimethylethylene.  
 $\alpha\alpha\beta$ -Trimethylglutaric acid.  
Trimethylglutaric anhydride.  
Trimethylindolium hydroxide.  
Trimethylpropionic acid.  
Triresorcinol.  
Tropinone.

- Bromo-derivatives. See:—  
 Undecylenic acid (hendecenoic acid).  
 Valeric acid and *iso*-Valeric acid.  
 Veratrol.  
 Vinylcyclopropane.  
 Xanthine.  
 Xylenol.
- Bromoform (WOLFF and SCHWABE), A., i, 523.  
 freezing points of solutions in (AM-  
 POLA and MANUELLI), A., ii, 238.
- Brongniartite from Broken Hill,  
 N.S.W. (SMITH), A., ii, 30.
- Brucine, detection of (FORMÁNEK), A.,  
 ii, 401.  
 titration of, by iodine (KIPPEN-  
 BERGER), A., ii, 682.
- Brushite, artificial (GAUTIER), A., ii, 185.
- Burette, gas, modification of (BLEIER),  
 A., ii, 70, 271, 573.
- Bunsen's, modification of (SCHATER-  
 NIKOFF and SETSCHENOFF), A., ii,  
 332.
- Burmite, from Burma (HELM), A., ii,  
 252.
- Burner, a new Bunsen (DIERBACH), A.,  
 ii, 415.
- iso*-Butaldehyde, action of alcoholic  
 soda on (URBAIN), A., i, 590.  
 action of zinc and ethylic bromo-*iso*-  
 butyrate on (REFORMATSKY), A.,  
 i, 128.  
 action of cyanacetic acid on (BRAUN),  
 A., i, 594.  
 action of formaldehyde and potash on  
 (JUST), A., i, 403.  
 action of malonic and acetic acids on  
 (BRAUN), A., i, 594.  
 action of potash on (FRANKE), A.,  
 i, 404.
- iso*-Butaldehyde, cyano-, acetate of  
 and the action of hydrogen chlor-  
 ide on it (COLSON), A., i, 284.
- cyclo*-Butane-1 : 3-dioxalylic acid and  
 its salts (KALTWASSER), A., i,  
 670.  
 phenylhydrazide of (KALTWASSER),  
 A., i, 670.
- cyclo*-Butane-1 : 3-dioxalylic anhydride  
 (KALTWASSER), A., i, 670.
- Butanetricarboxylic acid, ethylic salt,  
 velocity of hydrolysis of (HJELT), A.,  
 i, 600.
- Butane- $\gamma\gamma$ -tricarboxylic acid, ethylic  
 salt of (AUWERS and TITHERLEY),  
 A., i, 642.  
 action of sulphuric acid on (AUWERS  
 and TITHERLEY), A., i, 642.
- iso*-Butenylbenzene. See Phenylbutyl-  
 ene.
- Butenylic alcohol (*crotonylic alcohol*)  
 (CHARON), A., i, 637.
- Butenylic alcohol, action of acids or  
 anhydrides on (CHARON), A., i, 66.  
 action of acid chlorides on (CHARON),  
 A., i, 662.  
 action of zinc-copper couple on  
 (CHARON), A., i, 661.  
 salts of (CHARON), A., i, 661.
- Butter. See Agricultural chemistry.  
 (Appendix).
- Butterflies, pigments of (HOPKINS),  
 A., ii, 198.
- Butyl  $\alpha$ -hydroxyamyl ketone, density of  
 (ANDERLINI), A., i, 203.
- iso*-Butylacetic acid. See *iso*-Hexoic  
 acid.
- iso*-Butylacetoacetic acid, ethylic salt,  
 rate of formation of (BISCHOFF), A.,  
 i, 85.
- iso*-Butylallylcarbinol. See Octenylic  
 alcohols.
- Butylamine,  $\beta$ -bromo-, hydrobromide of  
 (BOOKMAN), A., i, 200.  
 $\beta$ -chloro- (BOOKMAN), A., i, 200.  
 $\gamma$ -chloro- (BOOKMAN), A., i, 200.  
 its salts and benzoyl derivative  
 (LUCHMANN), A., i, 545.
- iso*-Butylamine, action of carbon bi-  
 sulphide on (PONZIO), A., i, 636.
- iso*-Butylamines (BERG), A., i, 8.
- iso*-Butylanhydridibenzilacetoacetic  
 acid (JAPP and LANDER), T., 740 ;  
 P., 1895, 146.  
 silver and barium salts (JAPP and  
 LANDER), T., 740 ; P., 1895, 146.  
 ethylic and *iso* butylic (?) salts of,  
 reduction of (JAPP and LANDER),  
 T., 743 ; P., 1895, 146.
- iso*-Butylbenzene, magnetic rotatory  
 power, &c., of (PERKIN), T., 1082,  
 1083, 1192, 1241.
- ab-iso*-Butylcarboxyethylthiocarbamide  
 (DORAN), T., 331 ; P., 1896, 75.
- Butylchloramine (BERG), A., i, 9.
- Butyldichloramine (BERG), A., i, 9.
- iso*-Butyldihydroisoindole, base derived  
 from, and its platinochloride (BROM-  
 BERG), A., i, 580.
- m-iso*-Butyldihydrotoluene. See  
 Methyl*iso*butylcyclohexadiene.
- iso*-Butylene, formation of (HOOKER),  
 T., 1356.  
 action of acetic chloride on (KONDA-  
 KOFF), A., i, 462.  
 oxidation of, by palladinised copper  
 oxide (CAMPBELL), A., ii, 171.
- iso*-Butylic alcohol, action of light on  
 (RICHARDSON and FORTEY), T.,  
 1352 ; P., 1896, 164.  
 nitro- (HENRY), A., i, 4
- iso*-Butylideneacetoacetic acid, ethylic  
 salt of (KNORVENAGEL), A., i, 210.
- iso*-Butylidenebisacetonedicarboxylic

- acid, ethylic salt of (KNOEVENAGEL), A., i, 212.
- iso*-Butyridenecyanacetic acid (BRAUN), A., i, 594.
- iso*-Butyridenecyanacetoneitrile, action of bromine on (BRAUN), A., i, 594.
- hydrolysis of (BRAUN), A., i, 594.
- iso*-Butyridenephthalide (BROMBERG), A., i, 580.
- Butylmalonic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- iso*-Butylmalonic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- hydrolysis of (HJELT), A., i, 205, 598.
- action of ethylenic bromide on (BISCHOFF), A., i, 129.
- iso*-Butylmalonic acid, sodio-, ethylic salt, action of ethylic  $\alpha$ -bromopropionate,  $\alpha$ -bromobutyrate,  $\alpha$ -bromoisobutyrate, and  $\alpha$ -bromisovalerate on (BISCHOFF), A., i, 467.
- $\psi$ -Butylmalonic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- Butyloxamic acid, butylamine salt (BERG), A., i, 8.
- iso*-Butylphthalazine, chloro-, and its picrate and platinochloride (BROMBERG), A., i, 580.
- 1'-*iso*-Butylphthalazone (BROMBERG), A., i, 580.
- m*-*iso*-Butyltetrahydro-*m*-cresol. See 1:3-Methylisobutyleclohexenol-5.
- iso*-Butylthiocarbimide, action of hydrogen sulphide on (PONZIO), A., i, 636.
- m*-*iso*-Butyltoluene, 5-chloro- (GUNDLICH and KNOEVENAGEL), A., i, 212.
- Butyramide, action of sodium hypochlorite on (DE CONINGK), A., i, 282.
- Butyric acid, heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.
- and water, distillation of a mixture of (SOREL), A., i, 463.
- Butyric acid, potassium salt, products of electrolysis of (HAMONET), A., i, 664.
- dipropylacetylenic salt, density of (ANDERLINI), A., i, 203.
- ethylic salt, molecular volume in organic solvents of (NICOL), T., 143; P., 1895, 237.
- methylic salt, heat of evaporation of (MARSHALL and RAMSAY), A., ii, 349.
- phenylic salt, magnetic rotatory power, &c., of (PERKIN), T., 1075, 1076, 1078, 1180, 1238.
- estimation of (WILCOX), P., 1895, 202.
- Butyric acid,  $\beta$ -amino- (WEIDEL and ROITHNER), A., i, 470.
- $\alpha$ -bromo-, action of hydroxylamine on (HANTZSCH and WILD), A., i, 285.
- $\alpha\alpha\beta$ -tribromo- (VALENTIN), A., i, 79.
- $\beta$ -chloro-, ethylic salt of (WEIDEL and ROITHNER), A., i, 470.
- $\alpha\alpha\beta$ -trichloro-, formation of, from  $\alpha$ -chlorocrotonic acids (VALENTIN), A., i, 79.
- $\alpha\beta\beta$ -trichloro- (M.P. 51.5—52°) (SZENIC and TAGGESELL), A., i, 81.
- $\alpha$ -oxime of (HANTZSCH and WILD), A., i, 285.
- peroxide of, and its ethylic salt (JOVITSCHITSCH), A., i, 82.
- syn*-dioximido- (JOVITSCHITSCH), A., i, 82.
- Butyric chloride, action of zinc methide on (IPATIEFF), A., i, 402.
- iso*-Butyric acid, melting and solidifying points of (MASSOL), A., i, 408.
- action of uranium salts on (FAY), A., i, 465.
- hydrazine derivatives of (THIELKE and HEUSER), A., i, 340, 341.
- calcium salt, action of heat on (GLÜCKSMANN), A., i, 333.
- potassium salt, products of electrolysis of (HAMONET), A., i, 664.
- crotonylic salt (CHARON), A., i, 662.
- methylic salt, heat of evaporation of (MARSHALL and RAMSAY), A., ii, 349.
- iso*-Butyric acid, bromo-, action of finely divided silver on (HELL), A., i, 10.
- $\alpha$ -bromo-, ethylic salt, action of finely divided silver on (AUWERS and ZIEGLER), A., i, 643.
- hydroxylamino- (MÜNCH), A., i, 203.
- iso*-Butyric chloride, action of mercuric or lead thiocyanate on (DIXON), T., 862; P., 1896, 100.
- Butyrolin. See Propyl- $\alpha$ -hydroxybutyl ketone.
- Butyrolactone (BENTLEY, HAWORTH, and PERKIN), T., 168; P., 1896, 36; (FICHTER and HERBRAND), A., i, 463.
- dioxime (WOLFF and SCHWABE), A., i, 524.
- Butyronitrile, preparation of (HOFMANN LECTURE), T., 696.
- iso*-Butyronitrile, hydroxylamino- (MÜNCH), A., i, 203.
- Butyrophenone-*o*-carboxylic acid (BROMBERG), A., i, 579.
- Butyrylmalic acid, rotatory power of the methylic, ethylic, propylic, and

- isobutylic* salts of (WALDEN), A., ii, 136.
- Butyrylmalonic acid, specific rotation of the ethylic salt of (PURDIE and WILLIAMSON), T., 825.
- bromo-, ethylic salt, rotatory power of the (WALDEN), A., ii, 136.
- iso*-Butyrylmalic acid, rotatory power of the methylic and ethylic salts of (WALDEN), A., ii, 136.
- 4:1-*iso*-Butyrylmethylcyclopentan-3-one (*iso*-Butyrylmethylketopentamethylene), dioxime, copper derivative, ammonia and bisulphite compounds (VON BAEYER), A., i, 247.
- ab*-*iso*-Butyryl- $\alpha$ -naphthylthiocarbamide (DIXON), T., 865; P., 1896, 101.
- Butyrylphenylsemicarbazide (WIDMAN), A., i, 630.
- iso*-Butyrylphenylsemicarbazide (WIDMAN), A., i, 630.
- ab*-*iso*-Butyrylphenylthiocarbamide (DIXON), T., 862; P., 1896, 101.
- action of silver nitrate on (DIXON), T., 863; P., 1896, 101.
- ab*-*iso*-Butyrylphenylurea (DIXON), T., 863; P., 1896, 101.
- iso*-Butyrylthiocarbimide (DIXON), T., 862.
- action of aniline, *o*- and *p*-toluidine, and  $\alpha$ -naphthylamine on (DIXON), T., 862-865.
- ab*-*iso*-Butyryl-*o*-tolylthiocarbamide and action of silver nitrate on (DIXON), T., 863; P., 1896, 101.
- ab*-*iso*-Butyryl-*p*-tolylthiocarbamide and action of silver nitrate on (DIXON), T., 864; P., 1896, 101.
- ab*-*iso*-Butyryl-*o*-tolylurea (DIXON), T., 863; P., 1896, 101.
- ab*-*iso*-Butyryl-*p*-tolylurea (DIXON), T., 864; P., 1896, 101.
- Buzylene derivatives (CURTIUS), A., i, 339.
- Bynedestin, preparation of (OSBORNE and CAMPBELL), A., i, 714.
- Bynin from malt (OSBORNE and CAMPBELL), A., i, 715.

## C.

Cabbage, potato-, dye of bluish-skinned (WEIGERT), A., i, 388.

- Cacao butter, iodine number of (FISCHINGER), A., ii, 680.
- iodine number and refractive index of (STROHL), A., ii, 506.
- Cacoxenite from Bavaria (WEINSCHENK), A., ii, 310.

- Cactaceæ, alkaloids of (EWELL), A., i, 710.
- Cactus, alkaloids of (HEFFTER), A., i, 268.
- Cadmium, action of, on a photographic plate (COLSON), A., ii, 601.
- vapour density of (BILZ), A., ii, 152.
- solution and diffusion in mercury of (HUMPHREYS), T., 1680; P., 1896, 220.
- physiological action of (PADERI), A., ii, 491.
- Cadmium-alloys with lead and with zinc, solution and diffusion in mercury of (HUMPHREYS), T., 1681; P., 1896, 220.
- with silver, melting points of (GAUTIER), A., ii, 646.
- Cadmiumamalgam, thermoelectromotive force of solutions of cadmium salts and (HAGENBACH), A., ii, 513.
- Cadmium salts, physiological action of (ATHANASIU and LANGLOIS), A., ii, 319.
- bromide, thermochemical data of the compound of mercuric cyanide and (VARET), A., ii, 88.
- chloride, fused, electrolysis of (LORENZ), A., ii, 23.
- chromate and dichromate (SCHULZE), A., ii, 24, 25.
- hydroxide, electrochemical preparation of (LORENZ), A., ii, 647.
- iodide, thermochemical data of the action of mercuric cyanide on (VARET), A., ii, 148.
- niobate (LARSSON), A., ii, 564.
- sulphate, energy and electromotive force required to electrolyse (JAHN), A., ii, 230, 231.
- cæsium sulphate, density and optical behaviour of (TUTTON), T., 451.
- rubidium sulphate, density and optical behaviour of (TUTTON), T., 445.
- sulphide, electrochemical preparation of (LORENZ), A., ii, 648.
- physical change produced by gently heating (SPRING), A., ii, 290.
- effect of high temperature on amorphous (MOURLOT), A., ii, 603.
- thiopyrophosphate (FERRAND), A., ii, 473.
- Cadmium, separation of copper from (MAWROW and MUTHMANN), A., ii, 338.
- separation electrolytically from mercury (SMITH and WALLACE), A., ii, 220.



- Cæsium chlorate, electrolytic conductivity of solutions of (BAUR), A., ii, 144.
- chromic chlorides (WELLS and BOLTWOOD), A., ii, 107.
- uranyl chloride (WELLS and BOLTWOOD), A., ii, 108.
- ferrate (MOESER), A., ii, 251.
- zirconium fluorides (WELLS and FOOTE), A., ii, 179.
- perthiomybdate (HOFMANN), A., ii, 476.
- sulphate, constitution of double salts containing (TUTTON), T., 519; P., 1896, 71.
- cadmium sulphate, density and optical behaviour of (TUTTON), T., 451.
- cobalt sulphate, density and optical behaviour of (TUTTON), T., 428.
- copper sulphate, density and optical behaviour of (TUTTON), T., 441.
- ferrous sulphate, density and optical behaviour of (TUTTON), T., 396.
- magnesium sulphate, density and optical behaviour of (TUTTON), T., 366.
- manganous sulphate, density and optical behaviour of (TUTTON), T., 403.
- nickel sulphate, density and optical behaviour of (TUTTON), T., 415.
- titanium alum (PICCINI), A., ii, 365.
- vanadium alum (PICCINI), A., ii, 305.
- zinc sulphate, density and optical behaviour of (TUTTON), T., 383.
- Caffeine, synthesis of (FISCHER and ACH), A., i, 263.
- periodide, analogy of, to theobromine periodide (SHAW), T., 103; P., 1895, 177.
- physiological action of (ALBANESE), A., ii, 319, 492.
- effect of, on the germination of seeds (Mosso), A., ii, 326.
- estimation of, in tea (PETIT and TERRAT), A., ii, 629.
- estimation of, in presence of theobromine (DENIGES), A., ii, 387.
- Caffeine, chloro-, action of potash on (FISCHER), A., i, 13.
- Calamine from Spain (CESÀRO), A., ii, 479.
- Calaverite from Cripple Creek, Colorado (HILLEBRAND), A., ii, 31; (KNIGHT), A., ii, 614.
- Calcareous tufa from Bungonia, N.S.W. (CURRAN), A., ii, 535.
- Calcistrontite from Westphalia (LAPPEYRES and KAISER), A., ii, 660.
- Calcite, etching of (HAMBERG), A., ii, 366.
- Calcite, action of magnesium solutions on (KLEMENT), A., ii, 116.
- (*hislopite*), enclosures in (HOLLAND), A., ii, 261.
- Calcium salts, influence of, on blood coagulation (HORNE), A., ii, 437.
- elimination of, in cases of rickets (DE KONINCK), A., ii, 50.
- absorption and excretion of (REY), A., ii, 489.
- bromide, thermochemical data of the compound of mercuric cyanide and (VARET), A., ii, 88.
- oxybromide, thermochemical data of (TASSILLY), A., ii, 465.
- carbonate, welding of, under prolonged pressure (SPRING), A., ii, 300.
- action of sodium sulphate and carbonic anhydride on (TANATAR), A., ii, 419.
- effect of, on germination (CLAUDEL and CROCHETELLE), A., ii, 442.
- See also Aragonite, Calcite, Limestone, and Agricultural chemistry (Appendix).
- chloride, freezing points of aqueous solutions of (PONSOT), A., ii, 412.
- hexahydrated, absorption of moisture by (HAKE), P., 1896, 34.
- chromite (DUFAT), A., ii, 167.
- imidosulphonates (DIVERS and HAGA), T., 1625; P., 1896, 179.
- mercury imidosulphonate (DIVERS and HAGA), T., 1630; P., 1896, 179.
- iodide, thermochemical data of the action of mercuric cyanide on (VARET), A., ii, 148.
- hydrated, thermochemical data of (TASSILLY), A., ii, 350.
- niobate (LARSSON), A., ii, 564.
- nitrate, vapour pressures of concentrated solutions of (WADDELL), A., ii, 151.
- oxide (*lime*), crystallised (BRÜGELMANN), A., ii, 167.
- action of dry hydrochloric acid on (VELEY), A., ii, 360.
- effect of, on germination (CLAUDEL and CROCHETELLE), A., ii, 442.
- estimation of, photometrically (HINDS), A., ii, 574.
- estimation of, by potash soap (SZYFER), A., ii, 499.
- See also Agricultural chemistry.
- phosphate, crystalline, from basic slag (CARNOT), A., ii, 522.
- and phosphorus, influence of, on the nutrition of plants (STOKLASA), A., ii, 266.

- Calcium superphosphate from Algeria (MALBOT), A., ii, 185.  
 phosphates. See also Agricultural chemistry.  
 silicophosphate, crystalline, from basic slag (CARNOT), A., ii, 522.  
 metaplumbate (KASSNER), A., ii, 247; (GRÜTZNER), A., ii, 248.  
 orthoplumbate (KASSNER), A., ii, 247.  
 diplumbate (KASSNER), A., ii, 247.  
 tetraplumbate (KASSNER), A., ii, 248.  
 silicide (DE CHALMOT), A., ii, 473.  
 zirconate (VENABLE and CLARKE), A., ii, 653.
- Calcium cyanate, preparation of (FAURE), A., i, 113.  
 ferrocyanide, action of nitrous acid on (MARIE and MARQUIS), A., i, 403.
- Calcium, detection of traces of, in strontium salts (SÖRENSEN), A., ii, 361.  
 estimation of, by alkalies volumetrically (RUOSS), A., ii, 500.  
 separation of strontium and barium from (DUPASQUIER), A., ii, 450.
- Callitrolic acid: its salts and acetyl derivative (BALZER), A., i, 494.
- Calorimeter. See Heat.
- Camphanic acid from *o*-bromocamphoric acid (KIPPING), T., 65; P., 1895, 213.  
 from chlorocamphoric anhydride (MARSH and GARDNER), T., 82.  
 distillation of (ASCHAN), A., i, 447.  
 $\pi$ -bromo- (KIPPING), P., 1895, 212.
- $\pi$ -Camphanic acid, lactoanhydride (KIPPING), T., 942.
- cis*- $\pi$ -Camphanic acid, circular polarisation of, in the crystalline state (POPE), T., 974; P., 1896, 116.  
 crystallography and pyroelectric properties of (POPE), T., 973; P., 1896, 116.  
 methylic salt, anhydride (KIPPING), T., 943; P., 1896, 115.
- trans*- $\pi$ -Camphanic acid, oxidation of (KIPPING), T., 960; P., 1896, 115.  
 silver, ammonium salts, anhydride, amide (KIPPING), T., 929; P., 1895, 33, 88, 211; 1896, 114.
- Camphene, constitution of (MARSH and GARDNER), T., 90; (TILDEN), T., 1014.  
 from pinene (TILDEN and NICHOLLS), P., 1896, 138.  
 oxidation of (MARSH and GARDNER), T., 74; P., 1895, 206.  
 salt of isoborneol from (REYCHLER), A., i, 308.  
 bromide (REYCHLER), A., i, 381.
- Camphene, hydrochloride, behaviour towards acetic acid and bromine (JÜNGER and KLAGES), A., i, 313.
- Camphene,  $\alpha$ -dichloro- (KIPPING and POPE), P., 1895, 57; (LAPWORTH and KIPPING), T., 1559; P., 1896, 152, 188.
- Camphenephosphonic acid, chloro-, oxidation of (MARSH and GARDNER), T., 75.
- Camphenesulphonic acid,  $\alpha$ -chloro-, potassium and sodium salts, chloride, amide, anilide (KIPPING and POPE), P., 1895, 57; (LAPWORTH and KIPPING), T., 1551; P., 1896, 152, 188.  
 $\beta$ -chloro-, potassium, sodium, barium salts, lactone, chloride, amide, anilide (KIPPING and POPE), P., 1895, 57; (LAPWORTH and KIPPING), T., 1560; P., 1896, 152, 188.
- Camphenone, bromo-, constitution of (ANGELO and RIMINI), A., i, 248.
- Camphenylic acid from oxidation product of French turpentine (WAGNER and ERTSCHIKOWSKY), A., i, 380.
- Camphoic acid and its monammonium, triammonium, copper, and triplumbic salts (MARSH and GARDNER), T., 75; P., 1895, 206.
- Campholene hydriodide (GUERBET), A., i, 57.  
 nitrosochloride (GUERBET), A., i, 57.
- Campholenic acid, nitro- (BÉHAL and BLAISE), A., i, 56.
- i*-Campholenic acid, behaviour of, towards bromine (GUERBET and BÉHAL), A., i, 652.  
 action of nitric peroxide on (BÉHAL and BLAISE), A., i, 55.  
 oxidation of (BÉHAL), A., i, 55, 179.
- Campholenolide, ceruleonitroso- (BÉHAL and BLAISE), A., i, 56.  
 leuconitroso- (BÉHAL and BLAISE), A., i, 56.
- Campholic acid (GUERBET), A., i, 56.  
 cyano-, from campholide (HALLER), A., i, 385.  
 behaviour of, towards potassium bromide (HALLER), A., i, 448.
- Campholide (HALLER), A., i, 385.  
 hydrolysis of (FORSTER), T., 55; P., 1895, 209.  
 $\alpha$ -bromo-, hydrolysis of (FORSTER), T., 50; P., 1895, 209.  
 $\beta$ -bromo- (FORSTER), T., 54; P., 1895, 209.  
*di*bromo-, and its hydrolysis (FORSTER), T., 41; P., 1895, 208.
- allo*-Campholytic acid, ethylic salt (WALKER and HENDERSON), T., 749.

- cis*-Campholytic acid, nature of (NOYES), A., i, 696.
- Camphopyranilic acid (MARSH and GARDNER), T., 83; P., 1895, 206.
- cis*-Camphopyric acid and its lead and sodium salts and chloride (MARSH and GARDNER), T., 77; P., 1895, 206.
- meso*-Camphopyric acid (MARSH and GARDNER), T., 79.
- trans*-Camphopyric acid (MARSH and GARDNER), T., 80; P., 1895, 206.
- Camphopyric anhydride (MARSH and GARDNER), T., 77; P., 1895, 206.
- chloro- (MARSH and GARDNER), T., 83; P., 1895, 206.
- Camphopyric chloride (MARSH and GARDNER), T., 78; P., 1895, 206.
- chloro- (MARSH and GARDNER), T., 80; P., 1895, 206.
- $\alpha$ -Camphoramie acid, silver and copper salts (HOOGWERFF and VAN DORP), A., i, 314.
- $\beta$ -Camphoramie acid (HOOGWERFF and VAN DORP), A., i, 314.
- Camphor, constitution of (MARSH and GARDNER), T., 90; (ASCHAN), A., i, 492.
- from *d*-camphoric acid (HALLER), A., i, 448.
- from homocamphoric acid (BREDT and VON ROSENBERG), A., i, 178.
- heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- Camphor, amino-, from  $\pi$ -bromo- $\alpha$ -nitrocamphor and its hydrochloride and platinochloride (LAPWORTH and KIPPING), T., 315; P., 1895, 210.
- bromo-, constitution of (ANGELO and RIMINI), A., i, 248.
- $\pi$ -bromo-, from  $\alpha\pi$ -dibromocamphor, oxime of (REVIS and KIPPING), P., 1896, 77.
- $\alpha$ -dibromo-, behaviour of, towards nitric acid (FORSTER), T., 36; P., 1895, 207.
- $\alpha\pi$ -dibromo-, oxidation of (KIPPING), T., 915; P., 1895, 210; 1896, 114.
- $\pi$ -brom- $\alpha$ -amino-, hydrochloride, oxalate, platinochloride, and acetyl derivative (LAPWORTH and KIPPING), T., 316; P., 1895, 210.
- $\pi$ -bromo- $\alpha$ -nitro-, three modifications of, and the potassium, ammonium, sodium, barium, calcium, copper, manganese, zinc, nickel, cobalt, bismuth, lead, derivatives (LAPWORTH and KIPPING), T., 309; P., 1895, 210.
- Camphor,  $\alpha\pi$ -dibromo- $\alpha$ -nitro- (LAPWORTH and KIPPING), T., 308; P., 1895, 209.
- $\pi$ -bromo- $\alpha$ -isonitro-, and its potassium, barium, calcium, cobalt, nickel, copper, mercuric, bismuth, and acetyl derivatives (LAPWORTH and KIPPING), T., 317; P., 1895, 210.
- $\pi$ -chloro-, oxidation of (KIPPING and POPE), P., 1895, 213.
- $\alpha$ -chloronitro- conversion of, into camphorquinone (LAPWORTH), T., 322; P., 1896, 76.
- $\alpha$ -nitro-, rotatory power of, in different solvents (PESCIETTA), A., ii, 346.
- sodium derivative, molecular weight of (BECKMANN and SCHLIEBS), A., i, 124.
- Camphor. See also Anise-camphor, Matico-camphor, and Patchouli-camphor.
- Camphorenic acid, sodium, zinc, and methylic salts (FORSTER), T., 52; P., 1895, 208.
- bromo-, barium, silver, zinc, ammonium, copper, methylic salts, and oxidation of (FORSTER), T., 46; P., 1895, 208.
- Camphorenic anhydride (FORSTER), T., 52; P., 1895, 208.
- Camphoric acid, constitution of (MARSH and GARDNER), T., 90; (WALKER and HENDERSON), T., 957; P., 1896, 110; (NOYES), A., i, 695.
- from camphene (MARSH and GARDNER), T., 84; P., 1895, 206.
- from campholide (HALLER), A., i, 385.
- compound of, with acetone (POPE), T., 1696; P., 1896, 217.
- compounds of, with rhodinol and geraniol (ERDMANN and HUTH), A., i, 198.
- potassium etho-ethylie salt, electrolysis of (WALKER and HENDERSON), T., 748; P., 1896, 110.
- Camphoric acid, bromo-, from cyano-campholic acid (HALLER), A., i, 448.
- $\pi$ -bromo- (KIPPING), T., 924; P., 1895, 34, 210; 1896, 114.
- methylic salt (KIPPING), T., 924; P., 1895, 34, 210; 1896, 114.
- $\omega$ -bromo- (KIPPING), T., 63; P., 1895, 212.
- $\pi$ -chloro- (KIPPING and POPE), P., 1895, 213.
- d*-Camphoric acid, from  $\pi$ -bromocamphoric acid (KIPPING), T., 928.
- Camphoric acids, constitution and properties of (ASCHAN), A., i, 492.

- Camphoric anhydride, behaviour of, towards benzene in presence of aluminium chloride (BURKER), A., i, 179.  
 reduction of (HALLER), A., i, 385.  
 bromo-, behaviour of, with bases (ATWERS, SCHIEFFER, and SINGHOF), A., i, 643.  
 $\pi$ -bromo- (KIPPING), T., 927; P., 1896, 114.  
 $\omega$ -bromo- (KIPPING), P., 1895, 212.  
 $\pi$ -dibromo- (KIPPING), P., 1895, 212.  
 chloro- (MARSH and GARDNER), T., 82.  
 Camphoric chloride, chloro- (MARSH and GARDNER), T., 81.  
*iso*-Camphoric acids, constitution of (ASCHAN), A., i, 493.  
 Camphoric mononitrile: its anhydride and anilide (HALLER and MINGUIN), A., i, 695.  
 Camphoric peroxide (VANINO and THIELE), A., i, 597.  
 Camphorimide from cyanolauronic acid (HOOGWERFF and VAN DORP), A., i, 314.  
 $\alpha$ -Camphorisoimide hydrochloride and aurochloride (HOOGWERFF and VAN DORP), A., i, 314.  
 $\beta$ -Camphorisoimide hydrochloride and aurochloride (HOOGWERFF and VAN DORP), A., i, 314.  
 $\beta$ -Camphormethylisoimide, hydrochloride and aurochloride (HOOGWERFF and VAN DORP), A., i, 315.  
 Camphoronamic acid, ammonium ethylic salt of (HESS), A., i, 102.  
 Camphorone, behaviour of, towards phosphoric anhydride (KERP), A., i, 448.  
 reduction of (KERP), A., i, 448.  
 Camphoronic acid (BREDT, ARNTZ, and HELLE), A., i, 653.  
 diethylic and triethylic salts (HESS), A., i, 102.  
 triethylic salt, velocity of hydrolysis of (HJELT), A., i, 600.  
*iso*-Camphoronic acid from oxidation of pinonic and  $\alpha$ -pinonic acids (TIEMANN and SEMMLER), A., i, 309.  
 Camphoronimic acid and its ammonium salt and amide (HESS), A., i, 102.  
 Camphoroxime, behaviour of, towards methylic iodide (FORSTER), P., 1896, 146.  
 hydrobromide, methyl and acetyl derivatives of (FORSTER), P., 1896, 146.  
 Camphorpinacone, isomeride of (BECKMANN), A., i, 652.  
 Campherquinone, from  $\alpha$ -chloronitro-  
 camphor (LAPWORTH), T., 323; P., 1896, 76.  
 Camphorsulphonic acid,  $\alpha$ -bromo-, oxidation of ammonium salt (LAPWORTH and KIPPING), P., 1896, 77.  
*cis*-Camphotricarboxylic acid, and its silver salt, and anhydride (KIPPING), T., 966; P., 1896, 115.  
*trans*-Camphotricarboxylic acid, hydrated, crystallography and circular polarisation of (POPE), T., 978; P., 1896, 116.  
 and its silver, calcium salts, and anhydride (KIPPING), T., 951; P., 1896, 115.  
 Camphydrene, chloro-. See Pinene hydrochloride.  
 Canadine, physiological action of (VON BUNGE), A., ii, 492.  
 Cancrinite, formula of (RAMMELSBERG), A., ii, 190.  
 Cane-sugar. See Sugar.  
 Cannabin, preparation of cannabinol from (WOOD, SPIVEY, and EASTERFIELD), T., 546; P., 1896, 76.  
 Cannabinol, active constituent of Indian hemp (WOOD, SPIVEY, and EASTERFIELD), T., 544; P., 1896, 76.  
 existence of, in pharmaceutical preparation (WOOD, SPIVEY, and EASTERFIELD), T., 545; P., 1896, 76.  
 acetyl and benzoyl derivatives of (WOOD, SPIVEY, and EASTERFIELD), T., 545; P., 1896, 76.  
 Cannabinone, preparation of cannabinol from (WOOD, SPIVEY, and EASTERFIELD), T., 546; P., 1896, 76.  
*Cannabis indica*, constituents of (WOOD, SPIVEY, and EASTERFIELD), T., 539; P., 1896, 76.  
*sativa*, edestin, the proteid in (OSBORNE and CAMPBELL), A., i, 716.  
 Capric acid. See Decoic acid.  
*iso*-Caprolactone. See Hydroxyisohexioic acid, lactone of.  
 Caprylic acid. See Octoic acid.  
 Capsicum seeds, oil from (VON BITTÓ), A., ii, 209.  
 Capsicum seed mucilage (VON BITTÓ), A., ii, 209.  
 Caramel, polarisation and analysis of (HERON), A., ii, 394.  
 Carbamic acid, nitroso-, potassium salt (THIELE and LACHMANN), A., i, 208.  
 Carbamic azoimide (CURTIUS and HEIDENREICH), A., i, 143.  
 Carbamide, synthesis of, from guaiacol carbonate (CAZENEUVE), A., i, 528.

- Carbamide, heat of solution in water and ethylic alcohol of (SPEYERS), A., ii, 411.  
 freezing points of dilute solutions of (ABEGG), A., ii, 588.  
 action of acetylurethane on (OSTROGOVICH), A., i, 530.  
 action of  $\beta$ -amidopropionic acid on (WEIDEL and ROITHNER), A., i, 470.  
 action of benzaldehyde on (SCHIFF), A., i, 529.  
 action of carbonyl dichloride on (SCHIFF), A., i, 530.  
 action of  $\alpha$ -ethylaminopropionic acid on (DUVILLIER), A., i, 89.  
 action of ethylic chlorcarbonate on (SCHIFF), A., i, 530.  
 action of hypobromites on, in presence of a cyanate (ALLEN), P., 1896, 31.  
 action of phthalic anhydride on (DUNLAP), A., i, 471.  
 Carbamide, nitro- (THIELE and LACHMANN), A., i, 207.  
 thermochemical data of (TANATAR), A., ii, 466.  
 nitroso- (THIELE and LACHMANN), A., i, 208.  
 Carbamides, alkyl substituted, rate of formation of, from the corresponding cyanates (WALKER and APPLEBYARD), T., 193; P., 1896, 12.  
 Carbanilide. See *s*-Diphenylcarbamide.  
 Carbanite. See Phenylcarbimide.  
 Carbazoinide (*carbonyl nitride*) (CURTIUS), A., i, 340.  
 analogy of reactions with carbonyl chloride (CURTIUS and HEIDENREICH), A., i, 143.  
 Carbazole, discovery of (HOFMANN LECTURE), T., 631.  
 synthesis of (GRAEBE and ULLMANN), A., i, 575.  
*di*- and *tri*bromo-, acetyl and benzoyl derivatives of (MAZZARA), A., i, 393.  
*pentabromo*- (MAZZARA and LEONARDI), A., i, 393.  
*heptabromo*- (MAZZARA and LEONARDI), A., i, 393.  
 chlorobromo-, and its acetyl and benzoyl derivatives (LAMBERTI-ZANARDI), A., i, 304.  
 $\alpha$ - and  $\beta$ -dichlorodibromo-, benzoyl derivatives of (LAMBERTI-ZANARDI), A., i, 305.  
 chloronitro-, and its acetyl and benzoyl derivatives (LAMBERTI and ZANARDI), A., i, 651.  
 nitramino- (MAZZARA and LEONARDI), A., i, 392.  
 Carbethoxyacetohydroxamic acid, derivatives of (NEF and JONES), A., i, 460.  
 $\gamma$ -Carbodiphenylimide (SCHALL), A., i, 223, 305.  
 Carbohydrate from mucin (CHITTENDEN and GIES), A., i, 456.  
 Carbohydrates, hydrolysing action of glyoxylic acid on (BOETTINGER), A., i, 5, 6.  
 action of dilute alkalis on (DE BRUYN), A., i, 116.  
 of barley straw (CROSS, BEVAN, and SMITH), T., 1604; P., 1896, 174.  
 relation of furfuroids to total, from barley straw (CROSS, BEVAN, and SMITH), T., 1606; P., 1896, 174.  
 formation of proteids and, in plants (SAPOSCHNIKOFF), A., ii, 537.  
 Carbohydrates. See also:—  
 Achroodextrin.  
 Adonitol.  
 Amylodextrin.  
 Araban.  
 Arabinose.  
 Arabitol.  
 Cane-sugar.  
 Capsicum seed mucilage.  
 Cellulose.  
 Dextrin.  
 Dextrose (glucose).  
 Diglucose.  
 Dulcitol and *iso*-Dulcitol.  
 Erythrodextrin.  
 Fructose (levulose).  
 Galactan.  
 Galactose.  
 $\alpha$ - and  $\beta$ -Galaheptose.  
 Galactose.  
 Glucoheptitol.  
 Glucose (dextrose).  
 Glycerose.  
 Glycogen.  
 Inulin.  
 Inulin of garlic.  
 Jecorin.  
 Lactose.  
 Levulose (fructose).  
 Lyxose.  
 Maltodextrin.  
 Maltose and *iso*-Maltose.  
 Mannan.  
 Mannitol.  
 Mannose.  
 Metamaltose.  
 Methyltetrose.  
 Mucilage.  
 Oxycellulose.  
 Pectins and pectin substances.  
 Pentosans.  
 Polysaccharides.

## Carbohydrates. See:—

Raffinose.  
Rhamnose and *iso*-Rhamnose.  
Sorbitol.  
Starch.  
Volemitol.  
Xylan.  
Xylose.

Carbohydrazide (carbazine) (CURTIUS and HEIDENREICH), A., i, 143.

hydrochloride and sulphate (CURTIUS and HEIDENREICH), A., i, 143.

diacetyl derivative of (CURTIUS and HEIDENREICH), A., i, 143.

Carbohydrazimine (CURTIUS), A., i, 39.

Carbolic acid. See Phenol.

Carbolic powders, estimation of sulphurous anhydride in (DE KONINGH), A., ii, 275.

Carbon in meteorites (MOISSAN), A., ii, 194.

atomic weight of (WANKLYN), A., ii, 165.

atom, asymmetric (FITZGERALD), T., 892; P., 1896, 25.

Diamond, artificial (MOISSAN), A., ii, 644.

obtained from steel (ROSSEL), A., ii, 601.

black (MOISSAN), A., ii, 645.

phosphorescence of (KUNZ), A., ii, 306.

Graphite from a pegmatite (MOISSAN), A., ii, 182.

varieties of (MOISSAN), A., ii, 165.

specific heat of (VIOLE), A., ii, 8.

boiling point of (VIOLE), A., ii, 8.

compounds containing, bivalent (NEF), A., i, 71.

direct union of, with hydrogen (BONE and JEORDAN), P., 1896, 61.

Carbides, metallic, classification of (MOISSAN), A., i, 633.

action of water on (MOISSAN), A., i, 633.

Carbon tetrachloride, action of potassium bromide and iodide on (SNAPE), A., ii, 641.

action of zinc and sulphuric acid on (ANONYMOUS), A., i, 633.

Nitrographitic acid from spiegeleisen (DONATH), A., ii, 563.

Carbonic oxide, evolution of, by alkaline pyrogallol during oxygen estimations (CLOWES), P., 1895, 200.

spectrum of the flame of (BOHN), A., ii, 140.

behaviour of, when submitted to the electric discharge (COLLIE and RAMSAY), A., ii, 634.

## Carbon.

Carbonic oxide, duration of the flame in the explosive combustion of moist and dry (DIXON, STRANGE, and GRAHAM), T., 773; P., 1896, 55.

combination of oxygen with (DIXON), T., 774; P., 1896, 55. explosive mixtures of air and (CLOWES), P., 1895, 201.

oxidation of, by palladinised copper oxide (CAMPBELL), A., ii, 171.

combination of, with nitrous oxide (DIXON), T., 780; P., 1896, 56.

action of, on man (HALDANE), A., ii, 52.

absorption coefficient of (HÜFNER), A., ii, 485.

excretion of nitrogen in poisoning by (MÜNZER and PALMA), A., ii, 662.

estimation of, in air (HALDANE), A., ii, 76.

estimation of, in blood (HALDANE), A., ii, 52.

compound of, with hæmoglobin. See Hæmoglobin.

Carbonic anhydride, mode of formation of, in the combustion of carbon compounds (DIXON), T., 774; P., 1896, 55.

effect of electric sparks on (HOFMANN LECTURE), T., 728.

behaviour of, when submitted to the electric discharge (COLLIE and RAMSAY), A., ii, 634.

solubility of, in sodium phosphate solution, L. Meyer's investigation on (BEDSON), T., 1413.

solubility of, in aniline (KONOWALOFF), A., ii, 351.

the source of carbon for nitrifying organisms (GODLEWSKI), A., ii, 669.

source of, in muscle (KRÜGER), A., ii, 487.

action of, on nerve (WALLER), A., ii, 52.

estimation of, apparatus for (HEIDENHAIN), A., ii, 337.

estimation of, new baryta tube for (GEBLMUYDEN), A., ii, 674.

estimation of, volumetrically (SYMONS and STEPHENS), T., 869; P., 1896, 103.

estimation of, rapidly in the atmosphere (HENRIET), A., ii, 621.

estimation of, free and combined in waters (Vichy-Vals) (MELLÈRE), A., ii, 341.

estimation of, in carbonates by iodine (PHELPS), A., ii, 673.

- Carbon.
- Carbonates, artificial crystallised (BOURGOIS), A., ii, 110.
  - detection of, in presence of sulphites and sulphates (GIACOMELLI), A., ii, 124.
  - Carbonic acid, methylic and ethylic salts, heat of evaporation of (LOUGUININE), A., ii, 146.
  - $\beta$ -naphthyllic salt of, detection of (DRAGENDORFF), A., ii, 279.
  - Carbonic acid, chloro-, action of phenylacetylthiocarbamide on (DORAN), T., 343.
  - ethylic salt, action of, on formamide (FREER and SHERMAN), A., i, 612.
  - action of phenylthiocarbamide on (DORAN), T., 342.
  - action of lead thiocyanate on (DORAN), T., 325; P., 1896, 74.
  - imido-. See Imidocarbonic acid.
  - Carbonyl chloride, action of, on the hydrides of non-metals (BESSON), A., ii, 358.
  - action of, on phosphonium halogen compounds (BESSON), A., ii, 358.
  - action of, on dithioacetylacetone (VAILLANT), A., i, 591.
  - Carbon bisulphide, spectrum of the flame of (BOHN), A., ii, 140.
  - magnetic rotatory power, &c., of (PERKIN), T., 1123.
  - heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
  - volume changes during the formation of solutions in (JONES), P., 1895, 179.
  - influence of, on the combination of carbonic oxide and oxygen (DIXON), T., 783; P., 1896, 56.
  - influence of, on nitrification (PAGNOUL), A., ii, 67; (PAGNOUL and DEHERAIN), A., ii, 329.
  - effect of, on exhausted soils (OBERLIN), A., ii, 67.
  - Carbon, estimation of, new apparatus for (WUST), A., ii, 449.
  - estimation of, in aluminium (MOISSAN), A., ii, 339.
  - estimation of, in iron (PEIPERS), A., ii, 449.
  - (graphite), estimation of, in pig-iron (SHIMER), A., ii, 499.
  - estimation of, in steel (BLAIR), A., ii, 544.
  - estimation of, in zinc (FUNK), A., ii, 274.
  - Carbonado from Brazil (MOISSAN), A., ii, 182.
  - Carbonamidohydrazoisobutyronitrile, hydrolysis of (THIELE and HEUSER), A., i, 340.
  - Carbonyldiurea (SCHIFF), A., i, 530.
  - Carbonyldicarbamide (SCHIFF), A., i, 530.
  - Carbostyryl (2'-hydroxyquinoline), tautomerism of (CLAUS), A., i, 449.
  - 4-amino- (CLAUS and SETZER), A., i, 498.
  - 4-nitro- (CLAUS and SETZER), A., i, 498.
  - Carboxyacetyl succinic acid, ethylic salt of (EMERY), A., i, 414.
  - $\alpha$ -Carboxy- $\beta$ -acetylglutaric acid, ethylic salt (EMERY), A., i, 414.
  - 4-Carboxyamido benzoic acid, 3-amino-, and its salts (ZINCKE and HELMERT), A., i, 548, 549.
  - Carboxyethyl ethylnitrolic acid (NEF and JONES), A., i, 460.
  - ab*-Carboxyethyl ethylthiocarbamide (DORAN), T., 330; P., 1896, 75.
  - ab*-Carboxyethyl methylthiocarbamide (DORAN), T., 330; P., 1896, 75.
  - Carboxyethylthiocarbamic acid, salts of, action of silver nitrate on (DORAN), T., 335.
  - methylic, ethylic, propylic, isobutylic, and benzylic salts (DORAN), T., 334; P., 1896, 75.
  - Carboxyethylthiocarbimide (DORAN), T., 326, 335.
  - derivatives of, constitution of, and isomerism of (DORAN), T., 337.
  - action of ammonia, amines, piperidine, and phenylhydrazine on (DORAN), T., 327-339; P., 1896, 74, 75.
  - action of alcohols on (DORAN), T., 333; P., 1896, 75.
  - action of water on (DORAN), T., 336.
  - Carboxyethylthiourea (DORAN), T., 331; P., 1896, 75.
  - Carboxyethyl- $\psi$ -thiourea, hydrochloride of and hydrolysis of (DORAN), T., 341.
  - Carboxyethyl- $\beta$ -thiourethane. See Carboxyethylthiocarbamic acid, ethylic salt.
  - Carboxyhaemoglobin. See Haemoglobin.
  - Carboxyl group, replacement of, by an amido-group (CURTIUS), A., i, 340.
  - 2-Carboxyphenylmalonic acid, 6:4-dinitro-, ethylic salt of (JACKSON and ITTNER), A., i, 214.
  - Cardene, a reduction product of cardol (SPIEGEL and DOBRIN), A., i, 653.
  - Cardenic acid (SPIEGEL and DOBRIN), A., i, 653.
  - Cardic acid (SPIEGEL and DOBRIN), A., i, 653.
  - Cardol and derivatives, acetyl derivative of (SPIEGEL and DOBRIN), A., i, 653.

- Cardolic acid (SPIEGEL and DOBRIN), A., i, 653.
- Carnallite, ammonia in (ERDMANN), A., ii, 570. See also Agricultural chemistry.
- Carnaubic acid from wool fat (DARMSTÄDTER and LIFSCHÜTZ), A., i, 346.
- Carnic acid (SIEGFRIED), A., i, 660.
- Carniferrin (SIEGFRIED), A., i, 660.
- Caronebisnitrosylic acid, from bromotetrahydrocarvonebisnitrosylic acid (VON BAEYER), A., i, 246.
- Carotene, occurrence of (SCHRÖTTER-KRISTELL), A., ii, 208.
- Carvacrol from nitrosopinene (MEAD and KREMERS), A., i, 54.
- occurrence of, in oil of origanum (GILDEMEISTER), A., i, 55.
- magnetic rotatory power, &c., of (PERKIN), T., 1132, 1183, 1239.
- Carvacrol, *p*-amino-: its hydrochloride and acetyl derivative (PLANCHER), A., i, 358.
- nitramino- (SODERI), A., i, 359.
- Carvacrylic amylic ether (WELT), A., i, 333.
- Carvene, terpin hydrate from (REYCHLER), A., i, 308.
- i*-Carvone, from hydroxydihydrocarvoxime (WALLACH), A., i, 571.
- Carvoxime, hydrochloro-, active, from *d*-limonene nitrosochloride (VON BAEYER), A., i, 246.
- inactive, from terpineol, pinene, and hydrochlorodipentene nitrosochlorides and nitrosopinene (VON BAEYER), A., i, 246.
- Caryinite from Långban, Sweden (Sjögren), A., ii, 112.
- Casein and its salts (RÖHMANN), A., i, 515.
- constitution of (FLEURENT), A., i, 112.
- difference between caseinogen and (HAMMARSTEN), A., i, 583.
- behaviour of, with pepsin-hydrochloric acid (SALKOWSKI), A., i, 660.
- decomposition products of, by boiling with hydrochloric acid (COHN), A., i, 658.
- reactions of (EDMUNDS), A., ii, 489.
- absorption of, from the small intestine (FRIEDLÄNDER), A., ii, 536.
- as a food (MARCUSE), A., ii, 663.
- estimation of, in cheese (STUTZER), A., ii, 684.
- Caseinogen, difference between casein and (HAMMARSTEN), A., i, 583.
- Cassiterite, formation of (GAUTIER), A., ii, 529.
- Cassiterite, artificial (ARZRUNI), A., ii, 307.
- from New South Wales (LIVERSIDGE), A., ii, 658.
- Caswellite from New Jersey (CHESTER), A., ii, 309.
- Castor bean, edestin, a proteid in (OSBORNE and CAMPBELL), A., i, 716.
- Catalytic action of acids in accelerating chemical change (HARCOURT and ESSON), A., ii, 238.
- of aniline hydrochloride on the change of diazoamino- into aminoazobenzene (GOLDSCHMIDT and REINDERS), A., ii, 515.
- of hydrochloric acid on the rate of etherification (TAFEL), A., ii, 470.
- of hydrogen ions (NOYES), A., ii, 470.
- of nitrous acid (IHLE), A., ii, 460.
- Catechin, non-formation of acid compounds of (PERKIN), T., 1440; P., 1896, 167.
- Catechol, magnetic rotatory power, &c., of (PERKIN), T., 1127, 1130, 1135, 1184, 1240.
- effect of, on the freezing point of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 475.
- in red grapes (SOSTEGNI), A., ii, 122.
- Catechol, dinitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1333.
- 5-nitro-3-amino- (MELDOLA, WOOLCOTT, and WRAY), T., 1334; P., 1896, 164.
- Catecholdiantipyryne (PATEIN and DUFAU), A., i, 188.
- Cattle. See Agricultural chemistry. (Appendix.)
- Cedar-wood oil, detection and estimation of, in santal-wood oil (PARRY), A., ii, 400.
- Cedrene (CHAPMAN and BURGESS), P., 1896, 140.
- Celestite from New South Wales (CARD), A., ii, 256.
- Cell-division, chemistry of (HEINE), A., ii, 489.
- Cell-membranes of cryptogams, constituents of (WINTERSTEIN), A., ii, 210.
- Cell-nucleus, bases from the (KOSSELL), A., i, 582.
- Cells, effect of want of oxygen on (LOEB), A., ii, 318.
- wandering, of alimentary canal (HARDY and WESBROOK), A., ii, 42.
- Cellulose from various cryptogams, hydrolysis of (WINTERSTEIN), A., ii, 210.
- composition of the soluble products of acid hydrolysis of (CROSS, BEVAN, and SMITH), T., 810; P., 1896, 96.



- Cellulose, insoluble, obtained by acid hydrolysis, composition of (CROSS, BEVAN, and SMITH), T., 809; P., 1896, 96.  
 ferment of (OMELIANSKI), A., ii, 203.  
 digestion of, by enzymes (GRÜSS), A., ii, 669.  
 sulphite, action of sulphuric and oxalic acids on (SIMONSEN), A., i, 331.  
 estimation of (LANGE), A., ii, 278.  
 separation of wheat straw into insoluble cellulose and soluble products (CROSS, BEVAN, and SMITH), T., 807; P., 1896, 96.  
 separation of, from furfuroids by acid hydrolysis (CROSS, BEVAN, and SMITH), T., 806; P., 1896, 96.  
 Cellulose. See also Oxycellulose, and Agricultural chemistry. (Appendix.)  
 Celluloses of barley straw: their reactions (CROSS, BEVAN, and SMITH), T., 1609; P., 1896, 175.  
 cereal, constitution of the (CROSS, BEVAN, and SMITH), T., 804; P., 1896, 95.  
 acid hydrolysis of, and separation of the constituent groups (CROSS, BEVAN, and SMITH), T., 804; P., 1896, 96.  
 Cements, hydraulic (REBUFFAT), A., ii, 360.  
 examination of (STANGER and BLOUNT), A., ii, 392.  
 molecular composition of (ODDO and MANZELLA), A., ii, 246.  
 setting of (ODDO and MANZELLA), A., ii, 246.  
 Cephaeline, non-existence of, in one sample of ipecacuanha root, (CRIPPS), A., i, 396.  
 and its salts, preparation and properties of (PAUL and COWNLEY), A., i, 192.  
 action of heat on (PAUL and COWNLEY), A., i, 395.  
 estimation of, in ipecacuanha (CRIPPS), A., ii, 284.  
 Cereals. See Agricultural chemistry.  
 Cerebrin (THUDICHUM), A., i, 400.  
 Cerium carbide (MOISSAN), A., ii, 422.  
 molybdate (HITCHCOCK), A., ii, 526.  
 oxide, new source of (PHIPSON), A., ii, 422.  
 tungstate (HITCHCOCK), A., ii, 526.  
 separation of thorium from (FRESSENIUS and HINTZ), A., ii, 677.  
 Cerotic acid from beeswax (MARIE), A., i, 347.  
 glyceric salts of (MARIE), A., i, 347.  
 methylic and ethylic salts of (MARIE), A., i, 347.  
 Cerussite from Broken Hill, N.S.W. (SMITH), A., ii, 30.  
 coated with galena from Montana (HOBBS), A., ii, 33.  
 Cetyl. See Hexadecyl.  
 Chabazite from Thuringia (FROMME), A., ii, 370.  
 dehydration of, absorption of ammonia by (FRIEDEL), A., ii, 481.  
 Chalk, welding of, under prolonged pressure (SPRING), A., ii, 300.  
 Charas, constituents of (WOOD, SPIVEY, and EASTERFIELD), T., 539; P., 1896, 76.  
 Charcoal, production of, from various woods (BARILLOT), A., i, 403.  
 Cheese. See Agricultural chemistry.  
*Cheiranthus cheiri*, quercetin, the yellow colouring matter of (PERKIN and HUMMEL), T., 1567; P., 1896, 185.  
 Chelerythrine and its salts (ORLOFF), A., i, 396.  
*Chelidonium majus*, alkaloids of (ORLOFF), A., i, 396.  
 Chelilysine and its salts (ORLOFF), A., i, 396.  
 Chemical constitution, relation of, to physiological action (BLUMENTHAL), A., ii, 377.  
 Chinine. See Quinine.  
 Chinoline-blue. See Quinoline-blue.  
 Chironol (BAUR), A., i, 57.  
 acetyl and benzoyl derivatives of (BAUR), A., i, 57.  
 Chironolic acid (BAUR), A., i, 57.  
 Chloanthite from Sardinia (LOVISATO), A., ii, 183.  
 Chloral, condensation of, with resorcinol (HEWITT and POPE), T., 1265; P., 1896, 150.  
 Chloral hydrate, two crystalline forms of (POPE), P., 1896, 142.  
 heat of solution in water, ethylic alcohol, chloroform, and toluene (SPEYERS), A., ii, 411.  
 condensation of, with resorcinol (HEWITT and POPE), T., 1266; P., 1896, 150.  
 Chloralglucosan (MEUNIER), A., i, 334.  
 Chloralglucose (MEUNIER), A., i, 334.  
 Chloralic acid (HANRIOT), A., i, 519.  
 Chloralose (MEUNIER), A., i, 334.  
 Chloranil (*tetrachloroquinone*), preparation of (HOFMANN LECTURE), T., 641, 699.  
 action of sodium alkyl oxides on (JACKSON and GRINDLEY), A., i, 19.  
 Chlorargyrite from Broken Hill, N.S.W. (SMITH), A., ii, 30.  
 antimonial, from Broken Hill, N.S.W. (SMITH), A., ii, 30.

Chlorine, formation on heating manganese dioxide with potassium chlorate of (MCLEOD), T., 1015; P., 1896, 104.  
 retarding action of hydrochloric acid and metallic chlorides on the decomposition by light of aqueous solutions of (KLIMENKO), A., ii, 90.  
 conversion of, into hydrogen chloride (LOBENZ), A., ii, 17.  
 Hydrochloric acid, electrolytic conductivity of ethereal solutions of (MALTBY), A., ii, 144.  
 electrolysis of (OETTEL), A., ii, 555.  
 apparatus for the electrolysis of (HIGLEY and HOWARD), A., ii, 557; (PICKEL), A., ii, 557.  
 freezing points of dilute solutions of (LOOMIS), A., ii, 352.  
 freezing points of concentrated aqueous solutions of (ROLOFF), A., ii, 291.  
 dry, action of, on alkaline earths (VELEY), A., ii, 360.  
 action of, on copper (ENGEL), A., ii, 171.  
 acceleration of the action of hydrogen peroxide on hydriodic acid by (HARCOURT and ESSON), A., ii, 238.  
 gaseous, action of, on salts of elements of the fifth group (SMITH and HIBBS), A., ii, 164.  
 absorption by silk of dilute (WALKER and APPLEYARD), T., 1346; P., 1896, 147.  
 causes of secretion of, in the stomach (KOEPE), A., ii, 376.  
 estimation of, in gastric juice (SjöQUIST), A., ii, 496; (MORACZEWSKI), A., ii, 671.  
 Chlorides, effect of, on algae (WYPLEL), A., ii, 266.  
 conversion of sulphates into (JANNASCH), A., ii, 574.  
 estimation of, volumetrically in presence of hypochlorites and chlorates (CARNOT), A., ii, 447.  
 estimation of, volumetrically in presence of chlorates and perchlorates (CARNOT), A., ii, 447.  
 estimation of, in wine, milk, blood, urine, beer, vinegar, &c. (DENIGÈS), A., ii, 386.  
 Chloric acid, electrolytic preparation of alkali salts of (OETTEL), A., ii, 517.  
 Chlorates, detection of, by resorcinol (DENIGÈS), A., ii, 332.  
 detection of, in presence of tartrates, nitrates, and nitrites (DENIGÈS), A., ii, 332.

## Chlorine.

Chlorates, estimation of, volumetrically in presence of chlorides and hypochlorites (CARNOT), A., ii, 447.  
 estimation of, volumetrically in presence of chlorides and perchlorates (CARNOT), A., ii, 447.  
 separation of, from chromates and permanganates (DENIGÈS), A., ii, 332.  
 Hypochlorous acid, electrolytic preparation of alkali salts of (OETTEL), A., ii, 517.  
 Hypochlorites, estimation of, volumetrically in presence of chlorides and chlorates (CARNOT), A., ii, 447.  
 Perchlorates, estimation of (KREIDER), A., ii, 123.  
 estimation of, volumetrically in presence of chlorides and chlorates (CARNOT), A., ii, 447.  
 Chlorine peroxide, detonation of (DIXON and HARKER), T., 789; P., 1896, 57.  
 Chlorine, detection of, in organic compounds (RAIKOW), A., ii, 70.  
 separation of, quantitatively from bromine (BUGARSZKY), A., ii, 216.  
 Chloritoid from Michigan (HOBBS), A., ii, 33.  
 Chloro-derivatives. See:—  
 Acenaphthene.  
 Acetamide.  
 Acetic acid.  
 Acetoacetic acid.  
 Acetochloropyridinecarboxylic acid.  
 Acetone.  
 $\alpha$ -Acetophenylsemicarbazide.  
 Acetopicolinic acids.  
 Acetopiperidine.  
 Acetoxime.  
 Acetylmalic acid.  
 Anisole.  
 Anthracene.  
 Anthracenedisulphonic acid.  
 Anthracenesulphonic acid.  
 Benzaldehyde.  
 Benzantialdoxime.  
 Benzsynaldoxime.  
 Benzanidobenzene.  
 Benzanilide.  
 Benzene.  
 Benzenesalicylic acids.  
 Benzenediazonium salts.  
 Benzenesulphonamide.  
 Benzenyloxime.  
 Benzobutylamide.  
 Benzoformanilide.  
 Benzoic acid.  
 Benzoylcarbazole.

Chloro-derivatives. See:—

Butylamines.  
*iso*-Butylphthalazine.  
*m-iso*-Butyltoluene.  
 Caffeine.  
 Camphene.  
 Camphenephosphonic acid.  
 Camphenesulphonic acids.  
 Camphopyric anhydride.  
 Camphor.  
 Camphoric acids.  
 Camphoric anhydride.  
 Camphydrene.  
 Carbazole.  
 Carbonic acid.  
 Crotonamide and *iso*-Crotonamide.  
 $\beta$ -Crotonanilide and *iso*-Crotonanilide.  
 Crotonic acid and *iso*-Crotonic acid.  
*iso*-Crotonic chloride.  
 Crotonic- $\alpha$ -naphthylamide.  
*iso*-Crotonic- $\alpha$ -naphthylamide.  
 Cymene.  
 Cymenesulphonic acids.  
 Diamyloxyquinol.  
 Diamyloxyquinone.  
 Diamyloxyquinonediamylhemiacetal.  
 Diazoaminobenzene.  
 Diazobenzene anhydride.  
 Diazobenzenethiophenyl ethers.  
 Dibenzoyloxyquinol.  
 Dibenzoyloxyquinone.  
 Dibutylamine.  
 3 : 3-Diethoxybenzophenones.  
 Diethoxyquinol.  
 Diethoxyquinone.  
 Diethoxyquinonedimethylhemiacetal.  
 3 : 3-Diethoxythiobenzophenones.  
 Dihydrocymene.  
 Dihydrometacymene (1-methyl-3-*iso*-propylcyclohexadiene).  
 2 : 4-Dihydroxyacetophenone.  
 3 : 4-Dihydroxyquinoline.  
 $\alpha\gamma$ -Diketopyrhydrindene.  
 Dimethoxyquinol.  
 Dimethoxyquinonedimethylhemiacetal.  
 Dimethoxyquinonedimethylhemiacetal.  
 Dimethoxyquinone.  
 3 : 3-Dimethoxybenzophenone.  
 3 : 3-Dimethoxythiobenzophenone.  
 Dimethylbarbituric acid.  
 Dimethylmalonimide.  
 Dioxymethylpurin.  
 Diphenoxyquinone.  
 Diphenyl.  
 Diphenylamine.  
 Diphenylformamidine.  
 Diphenylmethane, *o*-cyano-.  
 Diphenylsulphoxide.  
 Dipropylpropional.  
 Dithienyl.  
 Ethylic ether.

Chloro-derivatives. See:—

Ethylideneanthranilic acid.  
*p*-Ethyltoluene.  
*p*-Ethyltoluenesulphonic acid.  
*p*-Ethyltoluenesulphonic chloride.  
 Fluoflavine.  
 Fluorenone.  
 Formamidobenzene.  
 Formanilide.  
 Formic acid.  
 Formo-*p*-toluidide.  
 Fumaric acid.  
 Gallic acid.  
 Glyoxylic acid.  
 Guaiacol.  
 Hexahydrocymene.  
*m*-Hexyltoluene.  
 Hydrolapachol.  
 Hydroxybenzylphenazone.  
 Hydroxyethylphenazone.  
 Hydroxymethylphenazone.  
 $\alpha$ -Hydroxypropionic acid.  
 $\alpha$ -Hydroxypyridone.  
 1-Hydroxyquinolinephenazine.  
 Hydroxyquinolinequinones.  
 Hydroxyquinolines.  
 Indophenazine.  
 Isatin.  
 Isatinsemicarbazone.  
 Ketopentene.  
 $\alpha\gamma$ -Ketopyrhydrindenecarboxylic acid.  
 Ketostearic acid.  
 Lactic acid.  
 Maleic acid.  
 Maleinuric acid.  
 Malonic acid.  
 Methane.  
 Methanesulphonepropionic acid.  
 Methenyl-*o*-aminothiophenol.  
 3-Methoxyquinoline.  
 1-Methyl-3-*isobutylcyclohexadiene*.  
 $\alpha$ -Methylbutyric acid.  
 $\alpha$ -Methylbutyric chloride.  
*iso*-Cyanuric acid, methylic salt.  
 1-Methyl-3-hexylcyclohexadiene.  
 Methylindazole.  
 1-Methyl-3-*isopropylcyclohexadiene*.  
 Methylpurin.  
 Methyltaurocarbamic acid.  
 Methyltriethylphosphonium chloride.  
 Naphthalenesulphonic acids.  
 Naphthol.  
 $\alpha$ -Naphthyl carbonic carbonate.  
 Oxymethylpurin.  
 Oxyvinylpicolinic acid.  
 cyclo-Pentene.  
 Phenol.  
 Phenyl tolyl ketone.  
 Phenylaminobenzylhydrazine.  
 Phenyldibenzyl-*m*-diazine.  
 Phenyldihydro- $\beta$ -phenotriazine.  
 Phenylic sulphide.

Chloro-derivatives. See:—

- 2'-Phenylindazole.
- Phenylketotetrahydroquinazoline.
- Phenylnitrobenzyl nitrosamine.
- $\beta$ -Phenylpropionic acid.
- Phenylisopropylacetic acids.
- 2-Phenylpyridine.
- 4'-Phenylquinazoline.
- Phenylthiotetrahydroquinazoline.
- iso*-Phthalic acid.
- Propaldehyde.
- Propane.
- Propylene.
- Propylic ether.
- 1'-Propylphthalazine.
- 1-Propylpiperidine.
- 1' : 3'-Propylisoquinoline.
- Pulegone.
- Pyrhydrindone.
- Pyrindone.
- Pyrogallol.
- Quinazoline.
- Quinoline.
- Quinolinephenazine.
- 3 : 4-Quinolinequinone.
- Quinonedimalonic acid.
- Quinoxaline.
- Resorcinol.
- Ricinin.
- Succinic acid.
- Sulphochlorobenzoic chloride,
- Terephthalic acid.
- Tetrahydrocymene.
- 5 : 5 : 5 : 5-Tetramethoxytetraphenyl-ethylene.
- 5 : 5 : 5 : 5-Tetrethoxytetraphenyl-ethylene.
- Theophylline.
- Thienyltriphenylmethane.
- Toluene.
- Toluenesulphonamide.
- m*- and *p*-Toluic acids.
- Toluquinone.
- 1 : 3 : 4-Triketohydroquinoline.
- Veratrole.
- Vinylpyridinecarboxylic acid.
- Xylenes.
- Xylenesulphonic acid.
- Xylidine.
- Xyloquinone.
- Chloroform, manufacture of, from carbon tetrachloride (ANONYMOUS), A., i, 633.
- heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- sulphur as a preservative of (ALLAIN), A., i, 3.
- action of, on nerve (WALLER), A., ii, 52.
- Chloromelanite (DAMOUE), A., ii, 115.
- Chloropal (KATZER), A., ii, 189.

- Chlorophyll (SCHUNCK and MARCH-LEWSKI), A., i, 181; (TSCHIRCH), A., i, 624.
- chemistry of (SCHUNCK and MARCH-LEWSKI), A., i, 496, 574.
- oxidation of (SCHROTTER-KRISTELLI), A., ii, 208.
- Alkachlorophyll, effect of heating, with alkali (SCHUNCK and MARCH-LEWSKI), A., i, 574.
- d*-Choleic acid, specific rotation of (VAHLEN), A., i, 454.
- Cholesterol, compounds of fatty acids with (HÜRTHE), A., ii, 485.
- reduction of (SCHROTTER-KRISTELLI), A., ii, 208.
- ketone obtained by the oxidation of (MAUTHNER and SUIDA), A., i, 426.
- from human faeces (BONDZYŃSKI), A., ii, 319.
- iso*-Cholesterol in *vernix caseosa* (RUPPEL), A., ii, 199.
- Cholesterols of cryptogams (GÉRARD), A., i, 21.
- $\alpha$ -Cholesterone (MAUTHNER and SUIDA), A., i, 425.
- $\beta$ -Cholesterone (MAUTHNER and SUIDA), A., i, 425.
- $\alpha$ -Cholesterylene (MAUTHNER and SUIDA), A., i, 425.
- $\beta$ -Cholesterylene (MAUTHNER and SUIDA), A., i, 425.
- Cholesterylic chloride (MAUTHNER and SUIDA), A., i, 426.
- substance derived from, by the action of silver nitrate (MAUTHNER and SUIDA), A., i, 426.
- nitro- (MAUTHNER and SUIDA), A., i, 426.
- ether (MAUTHNER and SUIDA), A., i, 425.
- tetrabromide (MAUTHNER and SUIDA), A., i, 426.
- Cholic acid, constitution of (SEŃKOWSKI), A., i, 453.
- preparation, properties, and rotatory power of (VAHLEN), A., i, 453.
- ethylic salt of (LASSAR-COHN), A., i, 582.
- Choline, occurrence of, in *Ficia sativa* (SCHULZE), A., ii, 208.
- Chondrodite from Nordmark, Sweden (SJÖGREN), A., ii, 114.
- Chromatin, function of, in animal and vegetable cells (MACALLUM), A., ii, 317.
- Chrome-steel, analysis of (RIDEAL and ROSENBLUM), A., ii, 276.
- Chromite (*chrome iron ore*), analysis of (RIDEAL and ROSENBLUM), A., ii, 276.

- Chromium, properties of, when obtained from its amalgam (FÉRÉE), A., ii, 304.
- Chromium-alloys with aluminium (COMBES), A., ii, 604.
- with copper (MOISSAN), A., ii, 602.
- with iron (BENNEVILLE), A., ii, 174.
- Chromium amalgams (FÉRÉE), A., ii, 303.
- Chromates, detection of (ANTONY), A., ii, 390; (TARUGI), A., ii, 548.
- detection of, in presence of arsenites (TARUGI), A., ii, 340.
- Dichromates, electrochemical preparation of (LORENZ), A., ii, 651.
- Perchromic acid, solvents for (GROSVENOR), A., ii, 177.
- Chromium iron carbides (BENNEVILLE), A., ii, 175.
- silicide (MOISSAN), A., ii, 174.
- thiophosphite (FERRAND), A., ii, 418.
- Chromic salts, absorption spectra of (ETARD), A., ii, 133.
- cæsium chlorides (WELLS and BOLTWOOD), A., ii, 107.
- chrome alum, effect of heat on aqueous solutions of (DOUGAL), T, 1526; P., 1896, 183.
- hydroxide, action of oxalic acid on (ROSENHEIM), A., i, 279, 348.
- sulphate, constitution of solutions containing (WHITNEY), A., ii, 525.
- action of heat on solutions of (RECOURA), A., ii, 27.
- Chromous ammonium carbonate (BAUGÉ), A., ii, 426.
- sulphide, crystallised (MOURLOT), A., ii, 304.
- thiopyrophosphate (FERRAND), A., ii, 473.
- Chromosulphuric acid, colloidal (CALVERT and EWAN), P., 1896, 160.
- Chromosulphuric acids (WHITNEY), A., ii, 525.
- Sulphochromyl hydroxide (RECOURA), A., ii, 27.
- Chromoxalic acid, colour of solutions of the potassium salt of (HAMBURGER), A., ii, 86.
- Chromium, separation of, qualitatively from iron (GIACOMELLI), A., ii, 128; (HARE), A., ii, 127.
- separation of, qualitatively from iron, nickel, cobalt, manganese, aluminium, and zinc (HARE), A., ii, 127.
- estimation of (STEAD), A., ii, 221.
- separation of, from manganese, iron, and aluminium (JANNASCH and VON CLOEDT), A., ii, 222.
- Chromium-tannage, analysis of used liquors from (HEAL and PROCTOR), A., ii, 393.
- Chrysaniline (*diaminophenylacridine*), discovery of (HOFMANN LECTURE), T., 610.
- Chrysene, fluorescence of gaseous (WIEDEMANN and SCHMIDT), A., ii, 86.
- Chrysin, relation of, to luteolin (HERZIG), A., i, 494.
- non-formation of acid compounds of (PEKIN), T., 1443; P., 1896, 167.
- Chrysocolla from Broken Hill, N.S.W. (LIVERSIDGE), A., ii, 657.
- from Hungary (PETHÖ), A., ii, 611.
- Chrysfluorene, constitution of (GRAEBE), A., i, 444.
- Chrysoidine, composition of (HOFMANN LECTURE), T., 626.
- Chrysoketone from  $\alpha$ -naphthoylbenzamide, and its oxime (GRAEBE), A., i, 444.
- Chrysophanohydroanthrone from rumicin (HESSE), A., i, 573.
- Cinchene (*cinchine*), hydrolytic decomposition of (KOENIGS), A., i, 63.
- Cincholeuonic acid from merquinene (KOENIGS), A., i, 63.
- constitution of (KOENIGS), A., i, 252.
- Cinchomeramide (BLUMENFELD), A., i, 60.
- Cinchomeric acid (3 : 4-pyridinedicarboxylic acid), reduction of (KOENIGS and WOLFF), A., i, 698.
- diethylic salt of (BLUMENFELD), A., i, 60.
- ethylbetaine of (BLUMENFELD), A., i, 60.
- Cinchona alkaloids, constitution of (KOENIGS), A., i, 328.
- crystalline form of (BEHRENS), A., i, 514.
- reduction products of (KONEK VON NORWALL), A., i, 395.
- detection of (JAWOROWSKI), A., ii, 629.
- Cinchona extract, examination of (HULSEBOSCH), A., ii, 682.
- Cinchonidine, formation of, from cinchonine (KOENIGS and HUSMANN), A., i, 707.
- actions of phosphorus pentachloride on (KOENIGS), A., i, 328.
- and its salts, microchemical reactions of (BEHRENS), A., i, 514.
- Cinchonine, conversion of, into cinchonidine (KOENIGS and HUSMANN), A., i, 707.
- Cinchotenenine (KOENIGS), A., i, 64.
- Cinnabar, artificial (IPPEN), A., ii, 108.
- estimation of mercury in, by electro-

- lysis (RISING and LENHER), A., ii, 338.
- Cinnamaldehyde, magnetic rotatory power, &c., of (PERKIN), T., 1125, 1145, 1149, 1227, 1247.
- action of, on hydrocotarnine (LIEBERMANN), A., i, 712.
- Cinnamene. See Styrene.
- iso-Cinnamylmandelic acid (JAPP and LANDER), P., 1896, 108.
- Cinnamic acid ( *$\beta$ -phenylacrylic acid*), physiological action of (HOFMANN LECTURE), T., 698.
- ethylic salt, magnetic rotatory power, &c., of the (PERKIN), T., 1145, 1149, 1228, 1247.
- guaiacol salt, detection of (DRAGENDORFF), A., ii, 278.
- Cinnamic acid, bromo-derivatives of (MICHAEL), A., i, 682.
- $\alpha$ - and  $\beta$ -bromo-, isomerism of (ERLENMEYER), A., i, 46.
- Cinnamic acids, isomeric (ERLENMEYER), A., i, 46.
- Cinnamic alcohol, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1126, 1149, 1228, 1247.
- Cinnamoylphenylsemicarbazide (WIDMAN), A., i, 630.
- Cinnamoylscopoline (MERCK), A., i, 65.
- di-Cinnamylidenediaminopentamethylenetetramine (DUDEN and SCHARFF), A., i, 123.
- Cinnamylideneimide, hydrochloride of (BUSCH), A., i, 706.
- Circulation, time of, in different animals (STEWART), A., ii, 48.
- Citraconic acid, heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.
- behaviour of, on heating under slight pressure (KRAFFT and DYES), A., ii, 89.
- amylic salt, rotatory power of (WALDEN), A., ii, 633.
- ethylic salt, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1173, 1237.
- action of alcoholic ammonia on (KÖRNER and MENOZZI), A., i, 205.
- action of ethylic iodide and zinc on (MICHAEL), A., i, 597.
- Citraconic acid, bromo-, silver salt of (MICHAEL), A., i, 132.
- Citraconic anhydride, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1173, 1237.
- Citradibromopyrotartaric acid (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.
- Citradibromopyrotartaric anhydride (MICHAEL), A., i, 131.
- action of aniline on (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.
- p*-tolilic acid of (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.
- Citrazinic acid (2 : 6-dihydroxypyridine-3-carboxylic acid), discovery of (HOFMANN LECTURE), T., 724.
- action of chloroform and sodium hydroxide on (SELL), T., 1448; P., 1896, 168.
- monaldehyde acid of. See Aldehydocitrazinic acid.
- Citric acid, formation of, by oxidation of cane-sugar (HICKS), A., i, 136; (PHIPSON), A., i, 137; (SEARLE and TANKARD), A., i, 137.
- absorption by silk of dilute (WALKER and APPELYARD), T., 1346; P., 1896, 147.
- ethylic salt, action of chloral on (EDELEANU and ZAHARIA), A., i, 348.
- methyl salt, action of chloral on (EDELEANU and ZAHARIA), A., i, 348.
- Citric-di- $\beta$ -naphthalide anhydride, and  $\beta$ -naphthylamine salt (GASSMANN), A., i, 487.
- Citroneila oil. See *Andropogon nardus*.
- Citronellaldehyde (TIEMANN and SCHMIDT), A., i, 382.
- constitution of (BARBIER and BOUVEAULT), A., i, 492.
- oxidation of (TIEMANN and SCHMIDT), A., i, 383.
- Citronellaldehydesemicarbazone (BARBIER and BOUVEAULT), A., i, 492.
- Citronellic acid, oxidation of (TIEMANN and SCHMIDT), A., i, 383.
- p*-toluidide of (BARBIER and BOUVEAULT), A., i, 492.
- Citronellol, oxidation of (TIEMANN and SCHMIDT), A., i, 383.
- acetate and formate (TIEMANN and SCHMIDT), A., i, 383.
- Citrus limetta* *risso*, constituents of (GILDEMEISTER), A., i, 54.
- vulgaris*, basic constituents of (JAHN-), A., i, 712.
- Cladonia*, absence of atranoric acid in some species of (ZOFF), A., i, 103.
- Clay, formation of (HOLLAND and DICKSON), A., ii, 261.
- Clay. See also Fuller's earth.
- Cleveite, spectrum of the gas obtained from (RUNGE and PASCHEN), A., ii, 1.
- absorption of helium by (TILDEN), A., ii, 655.

- Clinocllore from Canada (HOFFMANN), A., ii, 257.
- Clinohumite from Nordmark, Sweden (SJÖGREN), A., ii, 114.
- Clover. See Agricultural chemistry.
- Coagulability of blood, effect of peptone injections on (STARLING), A., ii, 197.
- Coagulation of blood, influence of certain salts on the (HORNE), A., ii, 437.
- antagonistic action on, between different salts (RINGER), A., ii, 49.
- in albino animals (PICKERING), A., ii, 664.
- Coal from Japan (BROWNE), A., ii, 656.
- argon in (SCHLÖSING), A., ii, 655.
- arsenic in (DOHERTY), A., ii, 566.
- vanadiferous, from Peru (TORRICO Y MECA), A., ii, 252.
- estimation of sulphur in (MABERY), A., ii, 387.
- Coal-gas. See Gas.
- Coals, Austrian (JOHN and EICHLEITER), A., ii, 252.
- Servian (STANOJEVIĆ), A., ii, 255.
- Cobalt in the sands near Brussels (CROCQ), A., ii, 434.
- atomic weight of (HEMPEL and THIELE), A., ii, 302.
- action of hydrogen peroxide on solutions containing (DURRANT), P., 1896, 96.
- Cobalt-bases, aminoniumdinitrodiamine cobalt oxalate (JØRGENSEN), A., ii, 426.
- oxalopurpureocobalt salts (JØRGENSEN), A., ii, 424.
- pentamineoxalopurpureocobalt salts (JØRGENSEN), A., ii, 424.
- tetramineoxalopurpureocobalt salts (JØRGENSEN), A., ii, 425.
- Cobalt salts, absorption spectra of (ÉTARD), A., ii, 133.
- apparatus for showing the conversion of cobaltous into cobaltic (ELBS), A., ii, 519.
- action of magnesium on solutions of (VITALI), A., ii, 420.
- injurious action of, on plants (HASSELHOFF), A., ii, 267.
- boride (MOISSAN), A., ii, 424.
- chloride, electrolytic dissociation of, at different temperatures (SALVADORI), A., ii, 512.
- niobate (LARSSON), A., ii, 564.
- hydrated oxide of. See Schulzenite.
- sesquioxide, precipitation of, by hypochlorous acid (E. KLIMENKO and B. KLIMENKO), A., ii, 303.
- dioxide, compound of, with magnesia (DUFAY), A., ii, 647.
- Cobalt silicide (VIGOUROUX), A., ii, 176.
- phosphide (GRANGER), A., ii, 651.
- sesquiphosphide (GRANGER), A., ii, 602.
- cæsium sulphate, density and optical behaviour of (TUTTON), T., 428.
- potassium sulphate, density and optical behaviour of (TUTTON), T., 419.
- rubidium sulphate, density and optical behaviour of (TUTTON), T., 424.
- sulphide, compound of, with carbon bisulphide and ammonia (WIEDE and HOFMANN), A., ii, 363.
- Cobalt, detection of, microchemically (SCHRÖDER VAN DER KOLK), A., ii, 578.
- detection of, by nitroso- $\beta$ -naphthol (VON ILINSKI), A., ii, 451.
- detection of, in presence of nickel (DURRANT), P., 1896, 96.
- separation of, qualitatively, from iron, nickel, chromium, manganese, aluminium, and zinc (HARE), A., ii, 127.
- separation of arsenic from (JANNASCH and LEHNERT), A., ii, 547.
- separation of manganese from (JANNASCH and LEHNERT), A., ii, 547.
- separation of, electrolytically, from gold and silver (SMITH and WALLACE), A., ii, 220.
- Cobaltocobalticyanic acid (JACKSON and COMEY), A., i, 402.
- $\alpha$ -Cocæthyline and its salts (WILLSTATTER), A., i, 709.
- Cocaine, formation of isomerides of, from tropinone cyanhydrin (WILLSTATTER), A., i, 708.
- effect of, on the germination of seeds (MOSSO), A., ii, 326.
- $\alpha$ -Cocaine and its salts and methiodide (WILLSTATTER), A., i, 708.
- Cocoa-nut shells (DE HAAS and TOLLENS), A., ii, 64.
- Coffee, amount of fat, sugar, and tannin in (HERZFELDT and STUTZER), A., ii, 63.
- Coleus versaffelti*, dyes of (WEIGERT), A., i, 388.
- Collidine, bromo- (2-methyl-5 $\alpha$ -bromethylpyridine), condensation of, with piperidine and with coniine (KNUDSEN and WOLFFENSTEIN), A., i, 60.
- Collidineconiine and its platinochloride (KNUDSEN and WOLFFENSTEIN), A., i, 60.
- Collidinepiperidine and its hydrochloride (KNUDSEN and WOLFFENSTEIN), A., i, 60.
- Colloidal animal tissues, reversal by

agents of the double refraction of (VON EBNER), A., ii, 457.  
 Colloidal solutions, theory of (KRAFFT), A., ii, 468.  
 derivatives of the higher paraffins (KRAFFT and STRUTZ), A., ii, 467.  
 Colloids, a filter for separation of, from crystalloids (MARTIN), A., ii, 665.  
*Colocasia antiquorum*, polyanhydride of diglucose in (YOSHIMURA), A., ii, 60.  
 Colophony. See Rosin.  
 Colour. See Light.  
 Colouring Matters. See:—  
*Afzelia guanzensis*, dyes from.  
 Alizarin.  
 Alizarin-yellow.  
 Alkachlorophyll.  
 Amantin.  
 Amaranth, red dye of.  
 Aniline-black.  
 Aniline-blue.  
 Aniline-purple.  
 Anilinoaposafranine.  
 Anilinomauveine.  
 Anilinophenylaposafranine.  
 Anilinosafrol.  
 Anilinosafranone.  
 Anthracene dyes.  
 Anthrachrysone.  
 Anthraflavic acid, and *iso*-Anthraflavic acid.  
 Anthrapurpurin.  
 Anthraquinone group of yellow dyes.  
 Aposafranine.  
 Aurin.  
 Autumnixanthin.  
 Azo-dyes.  
 Beans, blue.  
 Benzylrosindone.  
 Benzylrosinduline.  
 Bilberries.  
 Brazilin.  
 Britannia-violet.  
 Cabbage (potato), dye from.  
 Chrysaniline.  
 Chrysin.  
 Chrysosfluorene.  
 Chlorophyll.  
*Coleus verschaefelti*, dyes of.  
*Cornus sanguinea*, red dyes of.  
 Cyanin.  
 Dahlia.  
 Dehydrothiotoluidine.  
 Diethylaminonaphthophenoxazime.  
 Diethylaminophenonaphthoxazone.  
 Diethylsaffranine.  
 Dihydroxyaposafranone.  
 Dihydroxyflavone.  
 Dimethylaminodiphenazone.  
 Dimethylaminophenonaphthoxazime.  
 Dimethylindirubin.  
 Dimethylsaffranine.

Colouring Matters. See:—  
 Diphenylamine dyes.  
 Diphenylphenosfluorindine.  
 Diphenylisotetrazolone.  
 Dithiazolic derivatives.  
 Dyes, natural yellow.  
 Ethylmauveine.  
 Ethylsaffranol.  
 Eurhodines.  
 Fluorindines.  
 Hæmatoporphyrin.  
 Hæmatoxylin.  
 Hexamethyltriaminotriphenylmethane, dyes from.  
 Hofmann-violet.  
 Hydroxynaphthadiphenazone.  
 Indigo.  
 Indirubin.  
 Indulines.  
 Kermes berry.  
 Luteolin.  
 Mallow, dye from.  
 Mauveine.  
 Methoxyhexamethyltriaminotriphenylmethane.  
 Methylphenosfluorindine.  
 Myricetin.  
 Pararosaniline.  
 Pelagein.  
 Peonol derivatives.  
 Perkin's green.  
 Phenazine dyes.  
 Phenosafranine.  
 Phenylene-red.  
 Phenylene-red, methyl derivative of.  
 Phenylfluorindine.  
 Phenylindazoles.  
 Phenylindulines.  
 Phenylphenosfluorindine.  
 Phenylrosaniline.  
 Phosphine.  
 Phyllocyanin.  
 Phylloporphyrin.  
 Phylloporpuric acid.  
 Phyllotaonin.  
 Phylloxanthin.  
*Phytolacca decandra*, red dye of fruit of.  
 Primuline base.  
 Purpurin.  
 Purpuroxanthin.  
 Quinoline-blue.  
 Rosaniline bases, coloured.  
 Rosinduline, and *iso*-Rosinduline.  
 Rosotoluidine.  
 Saffranines.  
 Tetrethylaminodiphenoxazinium salts.  
 Tetramethylaminodiphenoxazinium salts.  
 Toluinotolylaposafranine.  
 Triethylchrysaniline.



Colouring Matters. See:—

- Triethylrosaniline.
- Trimethylchrysaniline.
- Trimethylrosaniline.
- Triphenylmethane dyes.
- Triphenylmethane series, sulphonated dyes from.
- Triphenylrosaniline.
- Triresorcinol.
- Turacin.
- Turacoporphyrin.
- Wine-red.

Columbic acid, preparation and properties of (HILGER), A., i, 624.

Columbin, preparation and properties of (HILGER), A., i, 624.

Columbite from New Hampshire (PENNINGTON), A., ii, 308.

from N. Carolina (CHRUSTSCHOFF), A., ii, 567.

Cumbo roots, constituents of (HILGER), A., i, 623.

Colza oil, oxidisability of (BISHOP), A., ii, 399.

compound of, with sulphur (HENRIQUES), A., i, 204.

Condenser, modified (VAN RIJN), A., ii, 91; (MICHAELIS), A., ii, 91.

the so-called Liebig's (KAHLBAUM), A., ii, 244.

$\gamma$ -Coniceine (2-propyltetrahydropyridine), reduction of (WOLFFENSTEIN), A., i, 632.

Coniceines, preparation of (HOFMANN LECTURE), T., 724.

Coniine, constitution of (HOFMANN LECTURE), T., 723.

condensation of, with bromocollidine (KNUDSEN and WOLFFENSTEIN), A., i, 60.

*d*- and *i*-Coniine, identity of a mixture of, with isoconiine (WOLFFENSTEIN), A., i, 632.

*iso*-Coniine, composition of (WOLFFENSTEIN), A., i, 632.

Conhydrine, constitution of (HOFMANN LECTURE), T., 724.

*Conium maculatum*, alkaloids of (WOLFFENSTEIN), A., i, 632.

*Conophallus Konjak*, occurrence of two kinds of mannan in (KINOSHITA), A., ii, 60.

Convicin, action of hydrochloric acid on (RITTHAUSEN), A., i, 416.

formation of alloxantin from (RITTHAUSEN), A., i, 416, 668.

*Convolvulus arvensis*, evolution of oxygen by (PHIPSON), A., ii, 265.

*orizabeus* (Pell), jalapin and a compound,  $C_{18}H_{30}O$ , from (KROMER), A., i, 385.

*Convolvulus scammonia* L., scammonin from (KROMER), A., i, 385.

Conyryne (2-propylpyridine), preparation of (HOFMANN LECTURE), T., 723

Cookeite from British Columbia (HOFFMANN), A., ii, 258.

constitution of (CLARKE), A., ii, 37.

Copaiba balsam, detection of fatty oils in (HIRSCHSOHN), A., ii, 508.

Copellidine (2 : 5-methylethylpiperidine), separation of, from isocopellidine (LEVY and WOLFFENSTEIN), A., i, 624.

Copellidines, stereoisomeric (LEVY and WOLFFENSTEIN), A., i, 624.

Copper, specific heat of (BARTOLI and STRACCIATI), A., ii, 145.

melting point of (HOLBORN and WIEN), A., ii, 87.

solubility and rate of diffusion of, in mercury (HUMPHREYS), T., 247; P., 1896, 9; (ROBERTS-AUSTEN), P., 1896, 219.

action of hydrochloric acid on (ENGEL), A., ii, 171.

action of sulphuric acid on (BASKERVILLE), A., ii, 474.

presence of, in food (LEHMANN), A., ii, 486.

Copper-alloys with chromium (MOISSAN), A., ii, 602.

with nickel, melting points of (GAUTIER), A., ii, 646.

with tin (FOERSTER), A., ii, 177.

solution and diffusion in (HUMPHREYS), T., 1682; P., 1896, 220.

with vanadium (MOISSAN), A., ii, 609.

with zinc, structure and constitution of (CHARPY), A., ii, 421.

mechanical properties of

(CHARPY), A., ii, 170.

solution and diffusion in mercury of (HUMPHREYS), T., 1682; P., 1896, 220.

Cupric salts, action of hydrogen sulphide on solutions of (BRAUNER), A., ii, 648.

influence of organic hydroxy-compounds on the precipitation of (KAHLENBERG), A., ii, 7.

effect of, on the growth of the vine and on the soil (BERLESE and SOSTEGNI), A., ii, 267.

non-toxic effect of, on plants (TSCHIRCH), A., ii, 329.

chloride, fused, electrolysis of

(LORENZ), A., ii, 23.

electrolytic dissociation at different temperatures of (SALVADORI), A., ii, 512.

## Copper.

- Cupric chromate and dichromate (SCHULZE), A., ii, 24.  
 hydroxide, electrochemical preparation of (LORENZ), A., ii, 647.  
 nitrate, energy and electromotive force required to electrolyse (JAHN), A., ii, 230, 231.  
 niobate (LARSSON), A., ii, 564.  
 nitrosodisulphonate (SABATIER), A., ii, 642.  
 sodium triphosphates (STANGE), A., ii, 643.  
 thiophosphite (FERRAND), A., ii, 418.  
 phosphide (GRANGER), A., ii, 603.  
 silicide (CHALMOT), A., ii, 362; (VIGOUROUX), A., ii, 362.  
 action of halogen acids on (COMBES), A., i, 417.  
 sulphate, energy and electromotive force required to electrolyse (JAHN), A., ii, 230, 231.  
 dissociation pressure of hydrated (MÜLLER-ERZBACH), A., ii, 295.  
 solubility of isomorphous mixtures of ferrous sulphate and (STORTENBEKER), A., ii, 14.  
 action of magnesium on solutions of (VITALI), A., ii, 420.  
 action of potassium ferrocyanide on (RAUTER), A., i, 3.  
 cæsium sulphate, density and optical behaviour of (TUTTON), T., 441.  
 potassium sulphate, density and optical behaviour of (TUTTON), T., 431.  
 rubidium sulphate, density and optical behaviour of (TUTTON), T., 437.  
 sulphide, preparation of normal (COPPOCK), A., ii, 562.  
 physical change produced by gently heating (SPRING), A., ii, 290.  
 electrochemical preparation of (LORENZ), A., ii, 648.  
 reduction of, by the Bunsen flame (STICKNEY), A., ii, 523.  
 ferrocyanide (RAUTER), A., i, 3.  
 Cuprous ammonium bromide (WELLS and HURLBURT), A., ii, 107.  
 chlorides (WELLS and HURLBURT), A., ii, 107.  
 iodide (WELLS and HURLBURT), A., ii, 107.  
 hydroxide, electrochemical preparation of (LORENZ), A., ii, 467.  
 thiopyrophosphate (FERRAND), A., ii, 473.

## Copper.

- Cuprous gold sulphide (MACLAURIN), T., 1275; P., 1896, 149.  
 allylide (KEISER), A., i, 458.  
 cyanide, thermochemical data of (VARET), A., ii, 149.  
 Copper ores, estimation of sulphur in (KELLER and MAAS), A., ii, 498.  
 pyrites after copper glance, from Russia (JEREMÉEFF), A., ii, 566.  
 Copper, detection of, in waters (EGELING), A., ii, 549.  
 estimation of (MAWROW and MUTHMANN), A., ii, 338.  
 estimation of, volumetrically (SPICA), A., ii, 127.  
 estimation of, volumetrically, by alkalis (RUOSS), A., ii, 500.  
 estimation of, by iodide assay (LOW), A., ii, 450.  
 estimation of, by thiosulphate and heating to oxide (NISSENSON and NEUMANN), A., ii, 450.  
 estimation of gold and silver in (SMITH), A., ii, 76.  
 matte, estimation of gold and silver in (SMITH), A., ii, 76.  
 estimation of, in presence of nickel (SPICA), A., ii, 127.  
 commercial, estimation of oxygen in (BLOUNT), A., ii, 333.  
 estimation of sulphur in (HEATH), A., ii, 497.  
 separation of cadmium and zinc from (MAWROW and MUTHMANN), A., ii, 338.  
 separation, electrolytically, from gold (SMITH and WALLACE), A., ii, 22.  
 separation of manganese from (JANNASCH), A., ii, 546.  
 separation of mercury from (JANNASCH), A., ii, 676.  
 separation of nickel from (BREARLEY), A., ii, 676.  
 separation of zinc and nickel from (JANNASCH), A., ii, 546.  
 Cordierite from Bohemia (KATZER), A., ii, 188.  
*Cornus sanguinea*, red dye of (WELGERT), A., i, 388.  
 Corundum (ruby) from Burma (BROWN and JUDD), A., ii, 32.  
 genesis and alteration of (BROWN and JUDD), A., ii, 33.  
 See also Emery.  
 Corylin, the proteid of the walnut, properties of (OSBORNE and CAMPBELL), A., i, 716.  
 Cotoin, non-occurrence of, in *Drimys granatensis* (HESSE), A., ii, 62.  
 detection of (FORMÁNEK), A., ii, 401.

- Cotton-seed oil, detection of, in lard (DUPONT), A., ii, 485.  
 estimation of the acetyl numbers of (SPAETH), A., ii, 454.  
 oxidisability of (BISHOP), A., ii, 399.
- Cotton seeds, proteins of (OSBORNE and VORHEES), A., ii, 210.
- Coumarin, refraction equivalent of (ANDERLINI), A., ii, 229.
- iso*-Coumarincarboxylic acid, reduction of, and action of aqueous soda on (BAMBERGER), A., i, 95.
- Coumarone, magnetic rotatory power, &c., of (PERKIN), T., 1201, 1240.
- Cratægus Oxyacantha*, colouring matter in (PERKIN and HUMMEL), T., 1570; P., 1896, 186.
- Creamometers, untrustworthiness of, for estimation of fat in pasteurised milk (CAZENEUVE and HADDON), A., ii, 130.
- Creatinine, percentage of, in blood (COLLS), A., ii, 666.  
 excretion of, during work and rest (ACKERMANN), A., ii, 121.  
 detection of, in urine (DE CONINCK), A., ii, 132.  
 estimation of, in urine (KOLISCH), A., ii, 283.
- Cresol, magnetic rotatory power, &c., of (PERKIN), T., 1127, 1185, 1185, 1240.
- iso*-Cresol, magnetic rotatory power, &c., of (PERKIN), T., 1127, 1185, 1240.
- o*-Cresol, magnetic rotatory power, &c., of (PERKIN), T., 1126, 1129, 1183, 1239.  
 phenylic substance derived from (JEITELES), A., i, 420.  
 substance obtained by distillation of, with lead oxide and a product of its reduction (JEITELES), A., i, 420.  
 nitrogenous compound obtained by the action of phenylhydrazine on a derivative of (JEITELES), A., i, 420.
- o*-Cresol, *dinitro*-, action of nitric acid on the mono- and di-methylamine derivatives of (FRANCHIMONT), A., i, 602.
- m*-Cresol, magnetic rotatory power, &c., of (PERKIN), T., 1126, 1129, 1183, 1239.  
 effect of, on the freezing point of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 474.
- trinitro*-, action of nitric acid on the mono- and di-methylamine derivatives of (FRANCHIMONT), A., i, 602.
- p*-Cresol, magnetic rotatory powers, &c., of (PERKIN), T., 1126, 1129, 1183, 1239.  
*dinitro*-, action of nitric acid on the mono- and di-methylamine derivatives of (FRANCHIMONT), A., i, 602.
- m*-Cresolbisazo-*o*-toluene (JACOBSEN, KEBER, HENRICH, and SCHWARZ), A., i, 26.
- m*-Cresolbisazo-*m*-toluene (JACOBSEN, KEBER, HENRICH, and SCHWARZ), A., i, 27.
- m*-Cresolbisazo-*p*-toluene (JACOBSEN, KEBER, HENRICH, and SCHWARZ), A., i, 27.
- Critical phenomena of mixtures of ethane and nitrous oxide (KUENEN), A., ii, 10.
- Critical pressure of ethylic alcohol (BATELLI), A., ii, 150.
- Critical temperature. See Heat.
- Critical volume, a method of measuring the (ZAMBIASI), A., ii, 234.  
 of ethylic alcohol (BATELLI), A., ii, 150.
- Crocoite from Tasmania (LIVERSIDGE), A., ii, 657.
- Crotonaldehyde, oxidation of (CHARON), A., i, 407, 408.  
 reduction products of (CHARON), A., i, 637, 661.  
 pinacone of (CHARON), A., i, 637.
- Crotonamide,  $\beta$ -chloro- (AUTENRIETH), A., i, 592.
- iso*-Crotonamide,  $\beta$ -chloro- (AUTENRIETH), A., i, 592.
- Crotonanilide,  $\beta$ -chloro- (AUTENRIETH), A., i, 592.
- iso*-Crotonanilide,  $\beta$ -chloro- (AUTENRIETH), A., i, 592.
- Crotonic acid,  $\alpha$ -chloro-, action of chlorine on (VALENTIN), A., i, 79.  
 ethylic salt, condensation of, with acetoacetic acid (RUHEMANN and WOLFF), T., 1391; P., 1896, 166.
- $\beta$ -chloro-, action of chlorine on (SZENIC and TAGGESELL), A., i, 81.  
 elimination of carbonic anhydride from (MICHAEL and CLARK), A., i, 132.  
 ethylic salt (AUTENRIETH), A., i, 627.  
 $\beta$ -naphthyllic salt (AUTENRIETH), A., i, 592.
- $\alpha\beta$ -dichloro- (m. p. 75.5°), centric symmetrical (SZENIC and TAGGESELL), A., i, 81.  
 (m. p. 92°), symmetrical (SZENIC and TAGGESELL), A., i, 81.

Crotonic chloride,  $\beta$ -chloro-, distillation of (AUTENRIETH), A., i, 592.

*iso*-Crotonic acid,  $\beta$ -chloro- (SZENIC and TAGGESELL), A., i, 81.

ethylic salt of (AUTENRIETH), A., i, 627.

$\beta$ -naphthyllic salt (AUTENRIETH), A., i, 592.

*iso*-Crotonic chloride,  $\beta$ -chloro-, distillation of (AUTENRIETH), A., i, 591, 592.

*allo*-Crotonic acid,  $\beta$ -chloro-, action of hydrochloric acid on (MICHAEL and CLARK), A., i, 132.

Crotonic- $\alpha$ -naphthylamide,  $\beta$ -chloro- (AUTENRIETH), A., i, 592.

*iso*-Crotonic- $\alpha$ -naphthylamide,  $\beta$ -chloro- (AUTENRIETH), A., i, 592.

Crotonyl alcohol. See Butenyl alcohol.

$\alpha$ -Crotylamine (BOOKMAN), A., i, 200.

*iso*-Crotylamine and its salts (LUCHMANN), A., i, 546.

Cryophyllite, constitution of (CLARKE), A., ii, 38.

Cryptogams, constituents of the cell-membranes of (WINTERSTEIN), A., ii, 210.

*Cryptomeria japonica*, effect of lime and magnesia on the development of (LOEW and HONDA), A., ii, 446.

Cryptoperthite from Greenland (USSING), A., ii, 372.

"Crystalline." See Aniline.

Crystallography:—

Atomic weight, influence of, on the crystal characters of the sulphates containing potassium, rubidium, and caesium (TUTTON), T., 495; P., 1896, 71.

Axes of the optical ellipsoid of the double sulphates of potassium, rubidium, and caesium, velocity of light along the (TUTTON), T., 466; P., 1896, 69.

Axes of the optical ellipsoid, orientation of, for double sulphates of potassium, rubidium, and caesium (TUTTON), T., 460; P., 1896, 69.

Cleavage of double sulphates of potassium, rubidium, and caesium (TUTTON), T., 455; P., 1896, 68.

Dendrites, artificial (ARCROWSKI), A., ii, 649.

Distance ratios of the double sulphates of potassium, rubidium, and caesium (TUTTON), T., 458; P., 1896, 69.

Crystalline form of chemically simple substances (RINNE), A., ii, 29.

Morphology of the double sulphates of potassium, rubidium, and caesium (TUTTON), T., 486.

Crystallography:—

Morphology of optical isomerides (WALDEN), A., ii, 553.

of chloral and bromal hydrates, thymol, and menthol (POPE), P., 1896, 142.

of *cis*- $\pi$ -camphanic acid (POPE), T., 973; P., 1896, 116.

of *trans*-camphotricarboxylic acid (hydrates) (POPE), T., 978; P., 1896, 116.

Optic axial angles of the double sulphates of potassium, rubidium, and caesium (TUTTON), T., 480; P., 1896, 70.

Point systems corresponding to the sulphates containing potassium, rubidium, and caesium (TUTTON), T., 504.

Polymorphism and molecular complexity (TUTTON), T., 509.

Structural unit of the crystals of sulphates containing potassium, rubidium, and caesium (TUTTON), T., 507; P., 1896, 71.

Crystalloids, a filter for separation of, from colloids (MARTIN), A., ii, 665.

Crystals, running together and healing of (LEHMANN), A., ii, 160.

Cubanite, composition of (SCHNEIDER), A., ii, 253.

Cubebs, occurrence of cubebin in (PEINEMANN), A., i, 494.

Cubebin, occurrence of, in piperaceous plants (PEINEMANN), A., i, 494.

$\psi$ -Cubebin in *Piper Lowong* (PEINEMANN), A., i, 495.

*di*bromo- (PEINEMANN), A., i, 495.

*dinitro* (PEINEMANN), A., i, 495.

*Cucurbita maxima*, edestin, a proteid in (OSBORNE and CAMPBELL), A., i, 716.

Cumene (*isopropylbenzene*) from camphorone (KERP), A., i, 448.

magnetic rotatory power, &c., of (PERKIN), T., 1082—1084, 1194, 1241.

formation of, from cuminic acid (HOFMANN LECTURE), T., 611.

sulphonation of (BAYRAC), A., i, 605.

*n*-Cumene (*propylbenzene*), magnetic rotatory power, &c., of (PERKIN), T., 1082, 1083, 1094, 1192, 1241.

hydrogenation of (TCHITCHIBABIN), A., i, 351.

*penta*bromo- (TCHITCHIBABIN), A., i, 351.

$\psi$ -Cumene (1 : 3 : 4-*trimethylbenzene*) from camphorone, isophorone, and acetophorone (KERP), A., i, 448.

magnetic rotatory power, &c., of (PERKIN), T., 1064, 1130, 1193, 1241.

- $\psi$ -Cumene, separation of, from coal-tar naphtha (HOFMANN LECTURE), T., 598.  
 $\psi$ -Cumenesulphoneglycocine, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.  
 Cumenesulphonic acids, preparation of, (BAYRAC), A., i, 605.  
 Cumengeite, artificial (FRIEDEL), A., ii, 32.  
*o*-Cumamol (*o*-isopropylphenol) (BAYRAC), A., i, 606.  
*m* Cumamol (*m*-isopropylphenol) (BAYRAC), A., i, 606.  
 preparation of (BAYRAC), A., i, 606.  
 indophenol derivative of (BAYRAC), A., i, 606.  
 $\psi$ -Cumamol (6 : 1 : 3 : 4-hydroxytrime-thylbenzene), substances  $C_{10}H_{10}Cl_2O$ ,  $C_{10}H_{10}Cl_2Br_2O$ , and  $C_{10}H_9Cl_2Br_3O$ , derived from (AUWERS), A., i, 421.  
 bromo-, aniline, phenylurethane, and piperidine derivatives of, and salts (AUWERS and MARWEDEL), A., i, 150.  
 dibromo-, bromide (AUWERS), A., i, 149, 421 (AUWERS and MARWEDEL), A., i, 149.  
 structure of (AUWERS), A., i, 421; (ZINCKE), A., i, 214.  
 ammonia derivatives of (AUWERS), A., i, 420.  
 aniline derivative of, and its hydriodide (AUWERS and SENTER), A., i, 424.  
 compound  $C_9H_9Br_2O_2$  obtained by action of moist silver oxide on (AUWERS and HOF), A., i, 422.  
 compound  $C_{18}H_{16}Br_2O_2$  obtained from (AUWERS and HOF), A., i, 422.  
 compound  $N(C_9H_9Br_2O)_3$  obtained from, by action of ammonia; its hydrobromide, and ethyl ether (AUWERS and HOF), A., i, 422.  
 compounds  $C_9H_9Br_3O$  and  $C_{11}H_{13}Br_2O$  formed in the preparation of (AUWERS and HOF), A., i, 423.  
 diethylamine derivative of, and its hydrobromide (AUWERS and HOF), A., i, 422.  
 diethylaniline derivative of, and its methiodide (AUWERS and SENTER), A., i, 423, 424.  
 dimethylaniline derivative of, and salts (AUWERS and AVERY), A., i, 150 (AUWERS and SENTER), A., i, 423.  
 ethylamine derivative of, and its hydrobromide (AUWERS and HOF), A., i, 422.  
 $\psi$ -Cumamol, dibromo-, bromide, methylamine derivative of, and its hydrobromide (AUWERS and HOF), A., i, 422.  
 methylaniline derivative of, and its salts (AUWERS and SENTER), A., i, 423.  
 $\beta$ -naphthylamine derivative of (AUWERS and SENTER), A., i, 423.  
 phenylurethane derivative of (AUWERS and HOF), A., i, 422.  
 piperidine derivative of, and its hydriodide (AUWERS and SENTER), A., i, 424.  
 compound of, with quinoline (AUWERS and SENTER), A., i, 423.  
 chloride (AUWERS and HOF), A., i, 423.  
 iodide (AUWERS and HOF), A., i, 423.  
 nitrite, constitution of (AUWERS), A., i, 421.  
 pyridine derivative of, and its hydrobromide (AUWERS and AVERY), A., i, 151.  
 dibromonitro- (AUWERS), A., i, 421.  
*o*-nitro- (AUWERS), A., i, 421.  
 dinitro-, isomeric forms of (AUWERS), A., i, 421.  

*p*-Cumidine, preparation of (HOFMANN LECTURE), T., 625.  
 action of cyanogen on (HOFMANN LECTURE), T., 590, 649.  
 colouring matter obtained by oxidation of (HOFMANN LECTURE), T., 605.  
 $\psi$ -Cumidine, oxyphosphazo-compound of (MICHAELIS and SILBERSTEIN), A., i, 345.  
 Cuminaldehyde (*p*-isopropylbenzaldehyde), magnetic rotatory power, &c., of (PERKIN), T., 1125, 1199, 1242.  
 Cuminic acid (*o*-isopropylbenzoic acid), ethylic salt, magnetic rotatory power, &c., of (PERKIN), T., 1125, 1176, 1238.  
 $\beta$ -iso-Cuminic acid (*mesitylenecarboxylic acid*) from dimesityldinitros-acyl (BAUM), A., i, 222.  
 etherification of (MEYER), A., i, 433.  
 Cumyl alcohol, magnetic rotatory power, &c., of (PERKIN), T., 1125, 1198, 1242.  
 Cumylidene-*p*-aminothymol (PLANCHER), A., i, 358.  
 Cupric. See under Copper.  
 Cuprite after malachite from Russia (JEREMÉEFF), A., ii, 566.

- Cupropyrrite. See Cubanite.
- Cuscuterin (BARBEY), A., ii, 65.
- Cuscuta epithymum*, constituents of (BARBEY), A., ii, 65.
- Cuscutin, a glucoside from *Cuscuta epithymum* (BARBEY), A., ii, 65.
- Cuskhygrine, oxidation and constitution of (LIEBERMANN and CYBULSKI), A., i, 710.
- Cusparia trifoliata*, alkaloids of (BECKURTS), A., i, 66.
- Cusparine, purification and derivatives of (BECKURTS), A., i, 66.
- Cyanbenzyliline. See 5-Phenyl-2 : 6-dibenzyl-*m*-diazine, 4-amino-
- Cyanethine acetic chloride (HERFELDT), A., i, 393.
- Cyanetholine. See Cyanic acid, ethylic salt of.
- Cyaniline, preparation of (HORMANN LECTURE), T., 649.
- Cyanin. See Quinoline blue.
- Cyano-derivatives. See :—
- Acetamide.
  - Acetanilide.
  - Acetic acid.
  - $\beta$ -Acetylpropionic acid.
  - Acetotetrahydro- $\beta$ -naphthylamine.
  - Benzene.
  - Benzenesulphonamide.
  - Benzenesulphonanilide.
  - Benzenesulphonic acid.
  - Benzenesulphonic chloride.
  - Benzene *o*-sulphonic acid.
  - Benzenesulphotoluidides.
  - $\beta$ -Benzoyl- $\alpha$ -benzylpropionic acid.
  - $\beta$ -Benzoyl- $\alpha$ -methylpropionic acid.
  - Benzoylpropionic acid.
  - iso*-Butaldehyde.
  - Campholic acid.
  - Diazoaminobenzene.
  - Dihydrocampholytic acid.
  - 3 : 4-Dimethoxybenzoic acid.
  - Dimethylcarballylic acid.
  - Diphenylcarbamide.
  - Diphenylmethane.
  - s*-Diphenylthiocarbamide.
  - Ethenylamidoxime.
  - Hydroxydiphenylmethane.
  - Imidocarbonic acid.
  - Lauronic acid.
  - Mesitylene.
  - Naphthalene.
  - Phenylcarbamide.
  - Phenylhydrazine.
  - Phenylic chloride.
  - 3'-Propylisocarbostyryl.
  - Trimethylpimelic acid.
- Cyano. See also Nitriles.
- Cyanoform and its silver and sodium derivatives (SCHMIDTMANN), A., i, 458.
- Cyanoform, sodio- (SCHMIDTMANN), A., i, 458.
- Cyanogen, three possible forms of (NEF), A., i, 71.
- spectrum of the flame of (LEWES), T., 240; P., 1896, 2.
  - luminosity of the flame of (GROVES), P., 1896, 5; (LEWES), A., ii, 141.
  - behaviour of, when submitted to the electric discharge (COLLIE and RAMSAY), A., ii, 634.
  - combustion of (DIXON), T., 775; P., 1896, 55.
  - explosive combustion of (DIXON, STRANGE, and GRAHAM), T., 759; P., 1896, 53.
  - duration of the flame in the explosive combustion of (DIXON, STRANGE, and GRAHAM), T., 763; P., 1896, 54.
  - influence of, on the combination of carbonic oxide and oxygen (DIXON), T., 783; P., 1896, 56.
- Cyanogen compounds, poisonous effect of, on algae and infusoria (BOKORNY), A., ii, 669.
- bromide, improved method of preparation of (SCHOLL), A., i, 535.
  - preparation of (TCHERNIAC), A., i, 661.
  - chloride, behaviour of, towards sodium alkylloxides (HANTZSCH and MAI), A., i, 33.
- Hydrocyanic acid, formation of, in *Pangium edule* (TREUB), A., ii, 327.
- preparation of pure (NEF), A., i, 75.
  - probably hydrogen isocyanide (NEF), A., i, 71.
  - action of acetic bromide on (NEF), A., i, 77.
  - action of hydrogen chloride on (NEF), A., i, 76.
- Cyanides, double, of silver and nickel with cyanides of the alkalis and alkaline earths (VARET), A., i, 633, 634.
- estimation of (DENIGÈS), A., ii, 385.
  - simple, estimation of, in presence of compound cyanides, &c. (CLENELL), A., ii, 223.
- Cyanide-working solutions, technical estimation of (BETTEL), A., ii, 224, 276.
- Ferrocyanides, new indicator for (STONE), A., ii, 126.
- estimation of, technically (BETTEL), A., ii, 276.
- Ferricyanides, estimation of, technically (BETTEL), A., ii, 277.

## Cyanogen.

- Cyanic acid, ethereal salts of, (HOFMANN LECTURE), T., 654.  
 ethylic salt of, preparation of (HOFMANN LECTURE), T., 716.  
 rate of change into the corresponding carbamides of the methyl-, dimethyl-, ethyl-, diethyl-, isoamyl-, and tertiary amyl-ammonium salts of (WALKER and APPLEYARD), T., 193—202; P., 1896, 12.  
 action of heat on solutions of the tetramethyl- and triethyl-ammonium salts of (WALKER and APPLEYARD), T., 205; P., 1896, 12.  
 Thiocyanates, estimation of, technically (BETTEL), A., ii, 276.  
 Cyanuric acid, discovery and constitution of (HOFMANN LECTURE), T., 717.  
 from acetoxoxamide and acetic anhydride (SCHIFF and MONSACCHI), A., i, 209.  
 thermochemical data of (LEMOULT), A., ii, 11.  
 solubility in water of (LEMOULT), A., ii, 11.  
 sodium and potassium salts, thermochemical data of the (LEMOULT), A., ii, 11.  
 sodium salts, action of carbonic anhydride on (LEMOULT), A., i, 70, 71.  
 triethylic salt, preparation of (HOFMANN LECTURE), T., 716.  
 Cyanuric acid, trithio-, trimethylic salt (HOFMANN LECTURE), T., 717.  
 iso-Cyanuric acid, trichlorotrimethylic salt of (HOFMANN LECTURE), T., 718.  
 triphenylic salt of (HOFMANN LECTURE), T., 715; (HANTZSCH and MAI), A., i, 34.  
 thio-, ethereal salts of, discovery of (HOFMANN LECTURE), T., 718.  
 Cyanomacurin, non-formation of acid compounds of (PERKIN), T., 1440; P., 1896, 167.  
 Cyanopropine, acetic chloride (HERFELDT), A., i, 393.  
 Cymene (*p-methylisopropylbenzene*), occurrence in oil of origanum (GILDEMEISTER), A., i, 54.  
 from trihydroxymethane (GINZBERG), A., i, 447.  
 magnetic rotatory power, &c., of (PERKIN), T., 1125, 1194, 1242.  
 heat of evaporation of (BECKMANN,

- FUCHS, and GERNHARDT), A., ii, 237.  
 Cymene, 2-chloro- (JÜNGER and KLAGES), A., i, 244.  
 3-chloro- (JÜNGER and KLAGES), A., i, 245.  
 5-chloro- (GÜNDLICH and KNOEVENAGEL), A., i, 212.  
*m*-Cymene (*m-methylpropylbenzene*), 5-chloro-2 : 4 : 6-trinitro- (GÜNDLICH and KNOEVENAGEL), A., i, 213.  
 2 : 4 : 6-trinitro-5-anilido- (GÜNDLICH and KNOEVENAGEL), A., i, 213.  
*p*-Cymene, from lemon-grass oil (BARBER and BOUVEAULT), A., 311.  
 Cymenecarboxylic acid (BOUVEAULT), A., i, 616.  
 Cymenesulphonic acid, from menthol (TOLLOCZKO), A., i, 381.  
 3-chloro-, barium salt and amide of (JÜNGER and KLAGES), A., i, 245.  
 5-Cymenesulphonic acid, 2-chloro-, barium salt, and chloride, amide, and anilide (JÜNGER and KLAGES), A., i, 245.  
 1 : 3 : 5-Cymidine, 2 : 4 : 6-trinitro- (GÜNDLICH and KNOEVENAGEL), A., i, 213.  
 Cymophenone. See Phenyl cymyl ketone.  
*p*-Cymoquinol (BAYRAC), A., i, 606.  
*p*-Cymoquinone, preparation of (BAYRAC), A., i, 606.  
 Cymylglyoxylic acid; and its ethylic salt (BOUVEAULT), A., i, 616.  
 Cyst, ovarian, analysis of contents of (LIEBLEIN), A., ii, 263.  
 Cystine, in the liver of the dolphin (DRECHSEL), A., ii, 378.  
 Cytase, action of (GRÜSS), A., ii, 669.  
 Cytisine, occurrence of, in *Papilionaceae* (PLUGGE), A., ii, 61.  
 amount contained in species of *Baptisia* (PLUGGE), A., i, 68.  
 identity of apopilocarpine with (DE MOER), A., i, 657.  
 identity of baptitoxine with (PLUGGE), A., i, 67.  
 detection of (GORTER), A., ii, 344.  
*Cytisus*, occurrence of cytisine in various plants of order (PLUGGE), A., ii, 61.

## D.

- Dahlia*. See Ethylmauveine.  
 Damourite from British Columbia (HOFFMANN), A., ii, 258.  
 Danaite from Ontario (HOFFMANN), A., ii, 191.

- Darapskite, artificial (SCHULTEN), A., ii, 610.
- Datisctin, non-formation of acid compounds of (PERKIN), T., 1440; P., 1896, 167.
- Datisca cannabina*, datiscetin, the colouring matter of (PERKIN), T., 1440; P., 1896, 167.
- Daucus carota*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Dayne, formula of (RAMMELSBERG), A., ii, 190.
- Deamidoalbumin, preparation and properties of (SCHIFF), A., i, 632.
- Deamidonitrosopeptone, solubility of (PAAL), A., i, 632.
- Deamidopeptone from deamidoalbumin (SCHIFF), A., i, 632.
- Deamidoglutin-peptone (PAAL), A., i, 456.
- Deamidonitrosoglutineptone (PAAL), A., i, 455.
- Deamidonitrosopropetone (PAAL), A., i, 456.
- Decadiene, 1:3- (FOURNIER), A., i, 457.
- DECANES:—
- Decane, heat of evaporation of (LUGININ), A., ii, 146.
- Di-*iso*-amyl, nitro- (KONOWALOFF and NIKITIN), A., i, 673.
- labile form of (KONOWALOFF), A., i, 676.
- dinitro- (KONOWALOFF and NIKITIN), A., i, 674.
- DECENOIC ACID:—*a-iso*Propyl- $\beta$ -*iso*-butylacrylic acid (KOHN), A., i, 462.
- DECENYLIC ALCOHOL:—Hexylallylcarbinol, action of potassium hydrogen sulphate on (FOURNIER), A., i, 457.
- Decoic acid (*capric acid*) (BEHREND), A., i, 410.
- Decylamine, preparation of, and its salts (KONOWALOFF and NIKITIN), A., i, 673.
- Decylenediamine and its salts (KONOWALOFF and NIKITIN), A., i, 674.
- Dehydrocinchonine (KOENIGS), A., i, 64.
- Dehydrolapachone, constitution of (HOOKER), T., 1369.
- $\psi$ -Dehydrolapachone (HOOKER), T., 1362, 1377.
- Dehydrothiitoluidine, action of bromine on (VAUBEL), A., i, 647.
- dibromo- (VAUBEL), A., i, 647.
- Dehydrosantonous acid, ethylic salt of, and its anhydride (RIZZO), A., i, 307.
- Dehydroudecylenic acid. See Hendecinoic acid: Dehydrohendecenoic acid.
- Density of gases, method of determining the (TOEPFLER), A., ii, 235; (MOISSAN and GAUTIER), A., ii, 294.
- Density of the liquid and gaseous phases at the critical point (ZAMBIASI), A., ii, 234.
- of liquids, method of determining (PERKIN), T., 1043; P., 1896, 122.
- of very dilute solutions (KOHLE-RAUSCH), A., ii, 89.
- of optical isomerides (WALDEN), A., ii, 553.
- relative, of alloys of iron and antimony (LABORDE), A., ii, 652.
- Density of argon (RAYLEIGH), A., ii, 598.
- of hydrogen (THOMSEN), A., ii, 471; (MORLEY), A., ii, 595.
- of oxygen (THOMSEN), A., ii, 471; (MORLEY), A., ii, 518.
- of liquid oxygen and air (DEWAR), P., 1895, 226.
- of double sulphates of potassium, rubidium, and caesium (TUTTON), T., 456; P., 1896, 68.
- Density, vapour, Hofmann's method for the determination of (HOFMANN LECTURE), T., 724.
- of arsenic (BILZ), A., ii, 152.
- of arsenic trioxide (BILZ), A., ii, 152.
- of cadmium (BILZ), A., ii, 152.
- of metaphosphoric acid (TILDEN and BARNETT), T., 158; P., 1896, 30.
- of phosphoric anhydride (TILDEN and BARNETT), T., 154; P., 1896, 30.
- of thallium (BILZ), A., ii, 152.
- of zinc (BILZ), A., ii, 152.
- Denuclein, estimation of, in beer wort (SCHJERNING), A., ii, 631.
- Deoxyamalic acid (FISCHER and ACH), A., i, 12.
- Deoxybenzoin. See Phenyl benzyl ketone.
- Deoxybenzofuroin (BADER), A., i, 417.
- Deoxycholic acid, physical constants of (VAHLEN), A., i, 454.
- Deoxycinchonidine and salts (KOENIGS), A., i, 328.
- Deoxycinchonine from cinchonine (KOENIGS), A., i, 264, 265.
- Deoxyconchinine from conchinine (KOENIGS), A., i, 265.
- Deoxyfuroin (BADER), A., i, 416.
- Deoxyquinine and salts (KOENIGS), A., i, 328.
- Desiccation, method of rapid, for serum (MARTIN), A., ii, 263.
- Desmotropodisantonous acid and its derivatives (ANDEBOCCI), A., i, 185.
- Desmotroposantonous acid: its oxidation, and its sodium derivative, (ANDEBOCCI), A., i, 185.



- Desmotroposantonous acid, methylic salt (ANDREOCCI), A., i, 185.  
 bromo-, and its methylic salt (ANDREOCCI), A., i, 185.  
 sodio-, and its ethylic salt (ANDREOCCI), A., i, 185.
- Desoxalic acid, ethylic salt of, preparation of (WISLICIENUS), A., i, 672.
- Desylacetic acid ( *$\beta$ -benzoyl- $\beta$ -phenylpropionic acid*), formation of, from desyleneacetic acid (JAPP and LANDER), P., 1896, 109.  
 formation of, from diphenyldihydroxyglutonic acid (JAPP and LANDER), P., 1896, 108.
- Desylacetophenone monhydrazide (SMITH), A., i, 322.
- Desyleneacetic acid ( *$\beta$ -benzoylcinnamic acid*), formation of, from anhydrazetonebenzil (JAPP and LANDER), P., 1896, 107.  
 reduction of (JAPP and LANDER), P., 1896, 109.
- Deuteroprotease. See Protease.
- Dextrin, reducing power of, on ammoniacal silver nitrate (HENDERSON), T., 151; P., 1896, 9.  
 Achroodextrin (ZULKOWSKI and FRANZ), A., i, 120.  
 preparation and purification of (BÜLOW), A., i, 274, 275.  
 primary (MITTELMEIER), A., i, 336.
- Amylodextrin, from potato starch and caustic potash (BÜLOW), A., i, 273.
- Erythro-dextrin (ZULKOWSKI and FRANZ), A., i, 120; (BÜLOW), A., i, 274.  
 primary, action of diastase on (MITTELMEIER), A., i, 336.
- Malto-dextrins, estimation of, in beer (MORRIS), A., ii, 395.
- Dextrins, separation of (BÜLOW), A., i, 274.
- Dextrose. See Glucose.
- Diabase, from Jersey, alteration of (HOLLAND and DICKSON), A., ii, 261.
- Diacenaphthylidenone, and its bromide (GRAEBE and JEQUIER), A., i, 444.
- Diacetamido-acetohydrazide (RADENHAUSEN), A., i, 138.
- Diacetamidoazobenzene (MELDOLA and ANDREWS), T., 11; P., 1895, 215.
- Diacetamidoazoxybenzene (MELDOLA and ANDREWS), T., 8; P., 1895, 215.
- 2 : 4-Diacetamidodiphenylamine (NITZKI and ALMENRÄDER), A., i, 164.
- 2 : 4-Diacetamido-1-hydroxyquinoline (CLAUS and DEWITZ), A., i, 654.
- 1 : 4 : 2-Diacetamidonaphthol (KEHRMANN and HERTZ), A., i, 566.
- 2 : 2'-Diacetamido-3 : 5 : 3' : 5'-tetramethyldiphenyl (KERSCHBAUM), A., i, 162.
- Diacetamidothymol (PLANCHER), A., i, 358.
- Diacetanilide (BLACHER), A., i, 33.
- Diacetoacetic acid, ethylic salt, thermochemical data of (GUINCHANT), A., ii, 12.
- Diacetobenzenesulphonamide (PILOTY), A., i, 556.
- Diacetodi-*p*-hydroxyphenylmalonamide (CASTELLANETA), A., i, 368.
- Diacetodi-*p*-hydroxyphenyloxamide (CASTELLANETA), A., i, 368.
- Diacetodimethylanilinediamide (SCHUSTER and PINNOW), A., i, 427.
- Diacetodiphenylethylenediamide (FEIST and ARNSTEIN), A., i, 259.
- m*-Diacetophenylenediamide (JACKSON and CALVERT), A., i, 538.  
*di*bromo- (JACKSON and CALVERT), A., i, 538.
- Diacetophenylethylenediamine (FEIST and ARNSTEIN), A., i, 256.
- 1 : 3 : 1'-Diacetoxymethylanthracene (SCHUNCK and MARCHLEWSKI), T., 71; P., 1895, 202.
- 1 : 3-Diacetoxynaphthalene (FRIEDLANDER and RÜDT), A., i, 569.
- Diacetylacetone, condensation of (COLLIE and WILLSMORE), T., 295; P., 1896, 47.
- Diacetylbisphenylmethylpyrazolone (AUTENRIETH), A., i, 627.
- Diacetyl*di*bromodinitrophenolphthalein (ERRERA and BERTÉ), A., i, 564.
- Diacetylcarbohydrazide (CURTIUS and HEIDENREICH), A., i, 143.
- Diacetyldianthranol (ORNDORFF and BLISS), A., i, 571.
- Diacetyldicyanide (NEF), A., i, 77.
- Diacetyl-*n*-dihydro- $\beta$ -phenotriazine (PINNOW and SAMANN), A., i, 366.
- Diacetyldihydroxymaleic anhydride. See Dihydroxymaleic anhydride, diacetyl derivative of.
- Diacetyldilactamide (COLSON), A., i, 284.
- 3 : 5-Diacetyl-2 : 4-dimethylpyrrolidine and its aurochloride (ZANETTI), A., i, 249.
- Diacetyldiphenyleneazone (TAÜBER), A., i, 686.
- Diacetyldurene (BAUM and MEYER), A., i, 228.
- 1 : 5-Diacetylisodurene (BAUM and MEYER), A., i, 228.  
 constitution of (MEYER), A., i, 433.  
 behaviour towards hydroxylamine (BAUM), A., i, 222.

- Diacetyl glyceric acid, ethylic salt, rotatory power of solutions of, in benzene and acetic acid (FRANKLAND and PICKARD), T., 135, 136; P., 1896, 11.  
freezing points of solutions of, in benzene and acetic acid (FRANKLAND and PICKARD), T., 134, 135; P., 1896, 11.
- Diacetylhydroxydiphenylethylamine (SÖDERBAUM), A., i, 484.
- Diacetylmalonenediamidoxime (SCHMIDTMANN), A., i, 458.
- Diacetylmesitylene, preparation of (MEYER), A., i, 547.
- Diacetylmethylpurpuroxanthin. See Diacetoxymethylanthracene.
- Diacetylmethylallyldithiourazole (FREUND and HEILBRUN), A., i, 415.
- Diacetylnepalin (HESSE), A., i, 573.
- Diacetylnepodin (HESSE), A., i, 574.
- Diacetylnesacetophenone. See Acetic acid, resacetophenone salt of.  
bromo-. See Acetic acid, resacetophenone salt of, bromo-.
- Diacetylsantonin acid (FRANCESCONI), A., i, 377.
- Diacetylsuccinyl- $\alpha$ -naphthalide (BOETTINGER), A., i, 443.
- Diacetyltartaric acid, dichloro-, rotatory power of the methylic, ethylic, propylic, and isobutylic salts of (FREUNDLER), A., ii, 554.
- Diacetyltartaric- $\beta$ -naphthalide (GASSMANN), A., i, 487.
- Diacetyltrimethylhæmatoxylin (HERZIG), A., i, 379.
- Diacetyltriorencinol. See Triorencinol.
- Diacetylxylin,  $C_5H_6Ac_2O_4$  (BADER), A., i, 335.
- Dialuric acid (*tartronylurea*), formation of, by hydrolysis of uric acid (GÉRARD), A., ii, 668.
- Dialkyldinitromethanes, reduction products of (BORN), A., i, 198.
- Diallage from Bavaria (SCHWAGER and GÜMBEL), A., ii, 432.  
from Quebec (HOFFMANN), A., ii, 258.
- Diallylacetamide. See Octinoamide.
- Diallylacetic acid. See Octinoic acid.
- Diallylacetone, action of sodium on, in ethereal solution (OBERREIT), A., i, 666.
- Diallylacetoneitrile. See Octinonitrile.
- Diallylethylamine. See Octinylamines.
- Diallylethylic alcohol. See Octinylic alcohols.
- Diallylmalonic acid, ethylic salt, hydrolysis of (HJELT), A., i, 205.
- Diallylpropylic alcohol. See Enninylic alcohols.
- Diamond. See Carbon.
- Diamylamine, partial oxidation of (DE HAAS), A., i, 122.
- Diamylamineoxychlorophosphine (MICHAELIS and LUXEMBOURG), A., i, 343.
- Diamylaminethiochlorophosphine (MICHAELIS and LUXEMBOURG), A., i, 343.
- Disoamylaminoacetone (STOERMER and POGGE), A., i, 408.  
hydrochloride and methiodide of (STOERMER and POGGE), A., i, 408.  
oxime of (STOERMER and POGGE), A., i, 408.  
semicarbazone of (STOERMER and POGGE), A., i, 408.
- Diamyloxyquinol, dichloro- (JACKSON and OENSLAGER), A., i, 293.
- Diamyloxyquinone, dichloro- (JACKSON and OENSLAGER), A., i, 293.  
diamylhemiacetal, dichloro-, and its sodium salt (JACKSON and OENSLAGER), A., i, 293.
- Dianilinodibenzoyldihydroxy-*nn*-dihydropyrazine. See Dihydrohippuroflavin, dianilide of.
- Dianilinotoluquinone (JACOBSEN, FERTSCH, MARSDEN, and SCHKOLNIK), A., i, 24.
- Dianisylidenecyclopentanone (*dianisylideneketopentamethylene*) (VOLÄNDER and HOBOMM), A., i, 604.
- Dianthracene (*paranthracene*), crystalline form of, and its conversion into anthracene (ORNDORFF and CAMERON), A., i, 176.
- Dianthranol, diacetyl derivative (ORNDORFF and BLISS), A., i, 570.
- Diaphragm, semipermeable. See Membrane.
- Diastase, chemical nature and preparation of (OSBORNE), A., i, 399; (OSBORNE and CAMPBELL), A., i, 716.  
effect of light on (GREEN), A., i, 110.  
effect of salts on the amylolytic power of (GRÜSS), A., ii, 59.  
proteids present in (OSBORNE), A., i, 398.  
function of, in plants (GRÜSS), A., ii, 59.  
detection of, in cells of plants (GRÜSS), A., ii, 59.
- Diastase, uropoietic in liver (RICHTER), A., ii, 119.
- Diazo-compounds, discovery of (HOFMANN LECTURE), T., 698.  
classification of (HANTZSCH), A., i, 429.

- Diazo-compounds, constitution of (BLOMSTRAND), A., i, 361.  
 aliphatic, general account of (CURTIUS), A., i, 337.  
 preparation of (TRAUBE), A., i, 337.
- Diazo-group, migration of (SCHRAUBE and FRITSCH), A., i, 221.
- Diazoacetic acid, action of heat on (CURTIUS), A., i, 337.  
 action of water and of alcohol on (CURTIUS), A., i, 338.  
 sodium salt (TRAUBE), A., i, 337.  
 ethylic salt (CURTIUS), A., i, 337.  
 action of alkali on (CURTIUS), A., i, 338.
- Diazoacetophenone (ANGELI and RIMINI), A., i, 362.
- Diazo-acids, ethereal salts of, preparation of (CURTIUS), A., i, 337.
- Diazoamino-compounds, velocity of change into aminoazo-compounds (GOLDSCHMIDT and REINDERS), A., ii, 556.
- Diazoaminobenzene, velocity of the change into aminoazobenzene (GOLDSCHMIDT and REINDERS), A., ii, 515.  
 behaviour of, towards phenylhydrazine (WALTHER), A., i, 543.  
 chloro- (BAMBERGER), A., i, 299.  
*o*-dicyano- (PINNOW and SÄMANN), A., i, 367.  
*o*-dinitro-, alkylation of (MELDOLA and STREATFEILD), P., 1896, 49.  
*p*-dinitro-, alkylation of (MELDOLA and STREATFEILD), P., 1896, 51.  
*op*-dinitro-, ethyl derivative (MELDOLA and STREATFEILD), P., 1896, 50.
- Diazoaminosulphanilic acid (SCHRAUBE and FRITSCH), A., i, 221.  
 barium salt (SCHRAUBE and FRITSCH), A., i, 221.
- Diazoanthranilic acid. See Diazonium-anthranilic acid.
- Diazobenzene, action of benzhydrazide on (CURTIUS), A., i, 339.  
 anhydride (BAMBERGER), A., i, 299.  
*m*-bromo- (BAMBERGER), A., i, 299.  
*p*-bromo- (BAMBERGER), A., i, 299.  
*p*-chloro- (BAMBERGER), A., i, 299.  
*m*-chloro- (BAMBERGER), A., i, 299.  
*m*-nitro- (BAMBERGER), A., i, 299.  
*p*-nitro- (BAMBERGER), A., i, 299.  
 perbromide from *p*-chlorodiazobenzene anhydride (BAMBERGER), A., i, 299.  
 chloride, reduction of (WALTER), A., i, 472.  
 mercaptanhydrosulphide, *p*-nitro-, and its lead, silver, and mercuric derivatives (BAMBERGER and KRAUS), A., i, 219.
- Diazobenzene sulphide, di-*p*-nitro- (BAMBERGER and KRAUS), A., i, 218.  
 conversion of, into the bisulphide (BAMBERGER and KRAUS), A., i, 220.
- bisulphide, di-*p*-nitro- (BAMBERGER and KRAUS), A., i, 220.
- Diazobenzene, *p*-chloro-, tribromide (HANTZSCH), A., i, 93.  
*op*-dichloro- (CHATTAWAY and EVANS), T., 850; P., 1896, 98.  
*p*-nitro-, methyl ether, conversion of, into *p*-nitrophenylhydrazinedisulphonic acid (BAMBERGER and KRAUS), A., i, 610.
- iso*-Diazobenzene hydroxide, *p*-nitro- (BAMBERGER), A., i, 299.  
 sodium and silver derivatives (BAMBERGER), A., i, 539.
- iso*-Diazobenzene, *p*-nitro-, conversion of, into *p*-nitrophenylhydrazinedisulphonic acid (BAMBERGER and KRAUS), A., i, 610.
- Diazobenzenebenzoylhydrazine, *p*-nitro- (VON PECHMANN), A., i, 680.
- Diazobenzenehydroxyaminobenzyl (BAMBERGER), A., i, 222.
- Diazobenzenehydroxyaminomethane, *p*-nitro- (BAMBERGER), A., i, 222.
- Diazobenzeneimide, *p*-nitro- (VON PECHMANN), A., i, 680.
- bis*-Diazobenzenepentamethylenetetramine, di-*p*-nitro- and di-*m*-nitro- (DUDEN and SCHARFF), A., i, 123.
- Diazobenzenephenylhydrazonemethanedisulphonic acid, potassium salt (VON PECHMANN), A., i, 679.  
*p*-bromo-, potassium salt (VON PECHMANN), A., i, 679.
- Diazobenzenesulphonic acid, behaviour of metallic salts of (BAMBERGER), A., i, 362.
- p*-Diazobenzenesulphonic acid, oxidation of (ZINCKE), A., i, 169.
- iso*-Diazobenzenesulphonic acid, primary potassium salt, disilver salt (BAMBERGER), A., i, 539.
- Diazobenzenethiophenyl ether (HANTZSCH and FREESE), A., i, 217.  
*p*-bromo- (HANTZSCH and FREESE), A., i, 217.  
 dibromo- (HANTZSCH and FREESE), A., i, 217.  
 tribromo- (HANTZSCH and FREESE), A., i, 217.  
*o*-chloro- (HANTZSCH and FREESE), A., i, 217.

- Diazobenzenethiophenyl ether, *anti-p*-chloro- (HANTZSCH and FREESE), A., i, 217.
- dichloro- (HANTZSCH and FREESE), A., i, 217.
- p*-iodo- (HANTZSCH and FREESE), A., i, 217.
- diiodo- (HANTZSCH and FREESE), A., i, 217.
- anti-p*-nitro- (HANTZSCH and FREESE), A., i, 218.
- Diazo-ethers from *p*-chlorodiazobenzene anhydride (BAMBERGER), A., i, 299.
- Diazohippuramide. See Hippurylazo-imide.
- Diazo-hydroxyamidobenzene (BAMBERGER), A., i, 222.
- Diazomethane (THIELE and MEYER), A., i, 407.
- reactions of (CURTIUS), A., i, 338.
- Diazomethanedisulphonic acid, behaviour of additive sulphite compound of, towards diazobenzene acetate (VON PECHMANN), A., i, 679.
- dipotassium salt (VON PECHMANN and MANCK), A., i, 15.
- dehydration of (VON PECHMANN), A., i, 678.
- Diazomesitylene iodide (HANTZSCH), A., i, 93.
- Diazometallic derivatives (BAMBERGER), A., i, 540.
- Diazonium group, the (HANTZSCH), A., i, 429.
- Diazonium thiocyanates, intramolecular change in (HANTZSCH and HIESCH), A., i, 428.
- Diazoniumanthranilic acid (HANTZSCH and DAVIDSON), A., i, 541.
- syn*-Diazoniumbenzene-*o*-sulphonic acid, sodium and potassium salts (GERILOWSKI), A., i, 439.
- anti*-Diazoniumbenzene-*o*-sulphonic acid, sodium and potassium salts (GERILOWSKI), A., i, 439.
- Diazoperhaloids (HANTZSCH), A., i, 92.
- o*-Diazophenol (HANTZSCH and DAVIDSON), A., i, 541.
- hydrosulphide, additive compound with hydrogen sulphide (HANTZSCH and FREESE), A., i, 218.
- m*-Diazophenol, mercuric chloride and mercuric iodide compounds (HANTZSCH and DAVIDSON), A., i, 541.
- p*-Diazophenol, cadmium iodide compound (HANTZSCH and DAVIDSON), A., i, 541.
- hydrosulphide, additive compound with hydrogen sulphide (HANTZSCH and FREESE), A., i, 218.
- anti-p*-Diazophenol cyanide (HANTZSCH and DAVIDSON), A., i, 541.
- anti*-Diazophenolcarboxylic acid, potassium salt (HANTZSCH and DAVIDSON), A., i, 541.
- Diazophenols, characteristics and structure of (HANTZSCH and DAVIDSON), A., i, 540.
- Diazophenolsulphonic acids, structure of (HANTZSCH and DAVIDSON), A., i, 541.
- p*-Diazo-*p*-phenoxybenzoic acid (HÄUSSERMANN and BAUER), A., i, 677.
- Diazophenyl *p*-tolylketone (LIMPRICHT and LENZ), A., i, 41.
- Diazopiperonylacetone (ANGELI), A., i, 296.
- iso*-Diazo-salts, distinction from normal salts (BAMBERGER), A., i, 299.
- Diazosuccinic acid, ethylic salt, action of heat on (CURTIUS), A., i, 338.
- Diazosulphanilic acid and *p*-toluidine, compounds from (SCHRAUBE and FRITSCH), A., i, 221.
- thiophenyl ether, and its *syn*-sodium, and silver salts (HANTZSCH and FREESE), A., i, 218.
- Diazosulphonates, dissociation of (BAMBERGER), A., i, 373, 439; (GERILOWSKI and HANTZSCH), A., i, 374, 428, 439.
- Diazotetrazoleimide. See Tetrazylazo-imide.
- p*-Diazotoluene, from diazosulphanilic acid and *p*-toluidine (SCHRAUBE and FRITSCH), A., i, 221.
- p*-Diazotoluene anhydride (BAMBERGER), A., i, 299.
- iso*-Diazo-*p*-toluene hydroxide, potassium derivative (BAMBERGER), A., i, 539.
- 6:1-Diazoxyanisole, 4-nitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1332; P., 1896, 164.
- Diazoxybenzoic acid (DIEPOLDER), A., i, 615.
- 3:2-Diazoxyphenol, 5-nitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1334; P., 1896, 164.
- Dibenzacetohydroxamic acid (NEF and JONES), A., i, 460.
- Dibenzacconine and its salts (DUNSTAN and CARR), P., 1895, 178.
- Dibenzamide (BLACHER), A., i, 33.
- Dibenzamidoozobenzene (MELDOLA and ANDREWS), T., 12; P., 1895, 215.
- Dibenzamidodanilidosuccinic acid, amidanhydride of, and its calcium salt (RUGHEIMER), A., i, 62.
- 2:4-Dibenzamido-1-hydroxyquinoline (CLAUS and DEWITZ), A., i, 654.

- exo*-Dibenzamido-*p*-xylene (LUSTIG), A., i, 164.  
 nitro- (LUSTIG), A., i, 164.  
 Dibenzenesulphonohydroxylamic acid, preparation of (PILOTY), A., i, 556.  
 Dibenzobenzhydroxamic acid (NEF and JONES), A., i, 460.  
 Dibenzodiphenylethylenediamine (FEIST and ARNSTEIN), A., i, 259.  
*tr*initro- (FEIST and ARNSTEIN), A., i, 259.  
 Dibenzodithiazole, preparation of (HOFMANN LECTURE), T., 713.  
 Dibenzoethylenediamine (LADENBURG), A., i, 201.  
 Dibenzohexamethylenediamide (CURTIUS and CLEMM), A., i, 464.  
 Dibenzo- $\alpha$ -hydroxy- $\alpha\beta$ -diphenylethylamide (SÖDERBAUM), A., i, 484.  
 Dibenzo-*iso*-hydroxydiphenylethylamide (SÖDERBAUM), A., i, 484.  
 Dibenzomalonediamidoxime (SCHMIDTMANN), A., i, 458.  
 Dibenzophenylethylenediamine (GABRIEL and STELZNER), A., i, 121.  
 Dibenzoxydiphenylmethane (MACKENZIE), T., 992; P., 1896, 117.  
 2:5-Dibenzo-*m*-xylylenediamide (KLAGES), A., i, 291.  
 4-chloro- (KLAGES), A., i, 291.  
 $\alpha$ -Dibenzoylacetylmethane (CLAISEN and FALK), A., i, 558.  
 benzoate of, and its anilide (CLAISEN and FALK), A., i, 560.  
 $\beta$ -Dibenzoylacetylmethane (CLAISEN and FALK), A., i, 558.  
 2:3-Dibenzoylbenzoic acid (GRAEBE and LEONHARDT), A., i, 437.  
 2:6-Dibenzoylbenzoic acid (GRAEBE and LEONHARDT), A., i, 437.  
 Dibenzoylbisphenylmethylpyrazolone (AUTENRIETH), A., i, 627.  
 identity of, with Neff's benzoylphenylbenzoylmethylpyrazolone (AUTENRIETH), A., i, 700.  
 Dibenzoyl-*n*-dihydro- $\beta$ -phenotriazine (PINNOW and SÄMANN), A., i, 366.  
 Dibenzoyldihydroxymaleic anhydride. See Dihydroxymaleic anhydride, di-benzoyl derivative of.  
 Dibenzoylglyceric acid, methylic salt, rotatory powers of solutions of, in benzene, ethylene dibromide, nitrobenzene, and acetic acid (FRANKLAND and PICKARD), T., 127, 130, 131, 133; P., 1896, 11.  
 freezing points of solutions of, in benzene, ethylene dibromide, nitrobenzene, and acetic acid (FRANKLAND and PICKARD), T., 125, 127, 129, 131, 132; P., 1896, 11.  
 Dibenzoylglyceric acid (active), methylic, ethylic, and propylic salts, rotatory power of the (FRANKLAND and MACGREGOR), T., 104; P., 1896, 9.  
 (inactive), methylic salt (FRANKLAND and MACGREGOR), T., 106; P., 1896, 9.  
 Dibenzoylmesitylene, behaviour of, towards hydroxylamine and phenylhydrazine (BAUM), A., i, 222.  
 Dibenzoyl-3-methylindazole, 1-amino- (GABRIEL and STELZNER), A., i, 320.  
 Dibenzoylphenolphthalein (BISTRZYKI and NENCKI), A., i, 237.  
 Dibenzoylphenylacetic acid and its silver salt (JAPP and LANDER), T., 741; P., 1895, 146.  
 Dibenzoylphenylmethane (JAPP and LANDER), T., 742; P., 1895, 146.  
 Dibenzoyl*isopyrazine*quinone. See Hippuroflavin.  
 Dibenzoyltartaric acid, rotatory powers of the methylic and ethylic salts of (FRANKLAND and WHARTON), T., 1585; P., 1896, 186.  
 Dibenzyl, magnetic rotatory power, &c., of (PERKIN), T., 1085, 1086, 1195, 1242.  
 Dibenzylacetic acid, *op*-dinitro- (REISSERT), A., i, 371.  
 Dibenzylacetoacetic acid, *o*-dinitro-, ethylic salt of (REISSERT), A., i, 371.  
 Dibenzylamine, magnetic rotatory power, &c., of (PERKIN), T., 1103, 1208, 1245.  
 partial oxidation of (DE HAAS), A., i, 122.  
 Dibenzylbenzidine, *o*-dinitro-, and its sulphate, dinitroso- and diformyl derivatives (TROEGER and EGGERT), A., i, 563.  
 Dibenzylcyanacetamide (ERRERA), A., i, 528.  
 Dibenzylcyanoacetic acid, *o*-dinitro-, ethylic salt of (REISSERT), A., i, 371.  
 Dibenzylhydantoin,  $\alpha$ -tetrabromo- (ERRERA), A., i, 529.  
 $\alpha$ -Dibenzylhydantoin and its dinitro-derivative (ERRERA), A., i, 528.  
 Dibenzylhydrazine, symmetrical: its hydrochloride, picrate, acetyl, benzoyl, and nitroso-derivatives, with the product of its oxidation (CURTIUS and QUEDENFELDT), A., i, 29.  
 Dibenzylidenediaminopentamethylenetetramine (DUDEN and SCHARFF), A., i, 123.  
 2:6-Dibenzylidenecyclohexanone

- (*dibenzylideneketohexamethylene*) (VORLÄNDER and HOBOMH), A., i, 604; (PETRENKO-KRITSCHENKO and ARZIBASCHEFF), A., i, 671.
- Dibenzylidenemethylcyclohexenone (WALLACH), A., i, 572.
- Dibenzylidenemethylcyclopentenone (WALLACH), A., i, 573.
- Dibenzylidenecyclopentanone (*dibenzylideneketopentamethylene*) (VORLÄNDER and HOBOMH), A., i, 604.
- Dibenzylidene-*o*-phenylenediamine (HINSBERG and KOLLER), A., i, 537.
- Dibenzylidenesuberone (WALLACH), A., i, 573.
- Dibenzylidenetriacetophenone (v. KOSTANECKI and ROSSBACH), A., i, 551.
- Dibenzylmalonic acid, nitrile of (ERRERA), A., i, 528.
- op*-dinitro-, ethylic salt of (REISERT), A., i, 371.
- Dibenzoyloxyquinol, dichloro- (JACKSON and OENSLAGER), A., i, 294.
- Dibenzoyloxyquinone, dichloro- (JACKSON and OENSLAGER), A., i, 294.
- Dibenzylphosphine, preparation of (HOFMANN LECTURE), T., 682.
- Dibenzylpiperazine and its salts (GABRIEL and STELZNER), A., i, 702.
- Dibenzyltetrazole,  $\beta$ -amino- (THIELE and INGLE), A., i, 109.
- Diisobutaldehyde (URBAIN), A., i, 590.
- Diisobutyl diketone (*iso-divaleryl*), refraction equivalent of (ANDERLINI), A., ii, 229.
- Diisobutyl ketone, refraction equivalent of (ANDERLINI), A., ii, 229.
- Dibutylamine, chloro- (BERG), A., i, 9.
- Diisobutylamine, partial oxidation of (DE HAAS), A., i, 122.
- Diisobutylaminechlorarsine (MICHAELIS and LUXEMBOURG), A., i, 343.
- Diisobutylaminechloroborine (MICHAELIS and LUXEMBOURG), A., i, 344.
- Diisobutylaminechlorophosphine (MICHAELIS and LUXEMBOURG), A., i, 343.
- Diisobutylaminechlorosilicene (MICHAELIS and LUXEMBOURG), A., i, 343.
- Diisobutylamineoxychlorophosphine (MICHAELIS and LUXEMBOURG), A., i, 343.
- Diisobutylaminethiochlorophosphine (MICHAELIS and LUXEMBOURG), A., i, 343.
- Diisobutylaminoacetone (STOERMER and POGGE), A., i, 408.
- hydrochloride, hydrobromide, and hydriodide (STOERMER and POGGE), A., i, 408.
- Diisobutylaminoacetone, methiodide of (STOERMER and POGGE), A., i, 408.
- semicarbazone of (STOERMER and POGGE), A., i, 408.
- Dibutyloxamide (BERG), A., i, 8.
- Dibutylryl, refraction equivalent of (ANDERLINI), A., ii, 229.
- $\psi$ -Dibutylryl-*o*-cyanobenzylidene cyanide (ALBAHARY), A., i, 699.
- Dicarbamide (CURTIUS), A., i, 340.
- hydrazine salt (CURTIUS and HEIDENREICH), A., i, 143.
- Dicarboxybenzoin. See Benzoin-dicarboxylic acid.
- Dicarboxyphenylglyoxylic acid, salts of (GRAEBE and BOSSEL), A., i, 436.
- phenylhydrazone of (GRAEBE and BOSSEL), A., i, 436.
- Dichlorhydrin, properties of (FLEMING), A., i, 333, 334.
- Dichloralglucose (MEUNIER), A., i, 334.
- 3 : 5-Dicinnamoyl-2 : 4-dimethylpyrrolone (ZANETTI), A., i, 249.
- Dicinnamylidenecyclopentanone (*dicinnamylideneketopentamethylene*) (VORLÄNDER and HOBOMH), A., i, 604.
- Dicotoin, composition of (HESSE), A., i, 60.
- Didehydroketocampholenic acid (BÉHAL and BLAISE), A., i, 56.
- Didehydrocampholenolide (BÉHAL and BLAISE), A., i, 56.
- Diduroquinone ((RÜGHEIMER and HANKEL), A., i, 687.
- acetyl and benzoyl derivatives of (RÜGHEIMER and HANKEL), A., i, 688.
- methyl-, ethylic, and propylic ethers of (RÜGHEIMER and HANKEL), A., i, 688.
- Didymium oxide, new source of (PHIPSON), A., ii, 422.
- colloidal solution of (DELAFONTAINE), A., ii, 562.
- 1 : 4-Diethoxalylpiperazine (ROSDALSKY), A., i, 257.
- 2 : 4-Diethoxyacetophenone,  $\alpha$ -dibromo- (SEGALLE), A., i, 613.
- $\beta$ -dibromo- (SEGALLE), A., i, 613.
- tribromo- (SEGALLE), A., i, 613.
- 2 : 4-Diethoxybenzoylformic acid and salts (GREGOR), A., i, 43.
- m*-Diethoxybenzene. See Resorcinol ethyl ether.
- 2 : 4-Diethoxybenzoic acid (GREGOR), A., i, 44.
- 3 : 3-Diethoxybenzophenone, 4 : 4-dichloro- (GATTERMANN), A., i, 173.

- 2 : 4-Diethoxybenzoylformic acid oxime (GREGOR), A., i, 44.
- Diethoxybenzylidenacetophenone.  
See Phenyl diethoxystyryl ketone.
- Di-2-ethoxybenzylidenetriacetophenone (KOSTANECKI and SCHNEIDER), A., i, 614.
- Di-3-ethoxybenzylidenetriacetophenone (KOSTANECKI and SCHNEIDER), A., i, 614.
- Di-4-ethoxybenzylidenetriacetophenone (KOSTANECKI and SCHNEIDER), A., i, 614.
- Di- $\beta$ -ethoxybutylamine (BOOKMAN), A., i, 200.
- $\beta$ -Diethoxybutyric acid and its ethylic and sodium salts (CLAISEN), A., i, 464.
- 3 : 3-Diethoxy-4 : 4-dimethylbenzophenone (GATTERMANN), A., i, 172.
- 3 : 3-Diethoxy-4 : 4-dimethylthiobenzophenone (GATTERMANN), A., i, 172.
- 3 : 4'-Diethoxydiphenylamine, 4-amino-  
See *p*-Ethoxyphenyl-*m*-ethoxy-*p*-phenylenediamine.
- Diethoxydiphenylmethane (MACKENZIE), T., 990; P., 1896, 117.
- Diethoxyglyoxylic acid, orthamino- : its ethylic salt and hydrochloride (NEF), A., i, 76.
- Diethoxyiminoglyoxylic acid, ethylic salt (NEF), A., i, 76.
- 2 : 4-Diethoxymandelic acid and its silver salt (GREGOR), A., i, 44.
- Di-*p*-ethoxyphenylmalonamide (CASTELLANETA), A., i, 368.
- Di-*p*-ethoxyphenyloxamide (CASTELLANETA), A., i, 368.
- Diethoxyquinol, dichloro-, dibenzoate (JACKSON and GRINDLEY), A., i, 155.
- Diethoxyquinone, dichloro-, dibenzoyl-diethylacetal (JACKSON and GRINDLEY), A., i, 154.
- diethylacetal ethylic dicarbonate (JACKSON and GRINDLEY), A., i, 155.
- tetrethylacetal (JACKSON and GRINDLEY), A., i, 154.
- Diethoxyquinonedieethylhemiacetal, dichloro- (JACKSON and GRINDLEY), A., i, 19.
- Diethoxyquinonedimalonic acid, ethylic salt of (JACKSON and GRINDLEY), A., i, 19.
- as*-Diethoxysuccinic acid (MICHAEL and BUCHER), A., i, 85.
- ethylic salt (MICHAEL and BUCHER), A., i, 599.
- from ethylic dibromosuccinate and ethylic acetylenedicarboxylate (MICHAEL and BUCHER), A., i, 599.
- as*-Diethoxysuccinic acid, ethylic salt, conversion of, into oxalacetic acid (MICHAEL and BUCHER), A., i, 599.
- 4 : 4-Diethoxythiobenzophenone (GATTERMANN), A., i, 172.
- 3 : 3-Diethoxythiobenzophenone, 4 : 4-dichloro- (GATTERMANN), A., i, 173.
- 1 : 3 : 4-Diethoxyxlenol, tribromo- (AUWERS and CAMPENHAUSEN), A., i, 424.
- Diethyl diketone (*dipropionyl*), refraction equivalent of (ANDERLINI), A., ii, 229.
- Diethyl ketone, refraction equivalent of (ANDERLINI), A., ii, 229.
- heat of evaporation of (LUGININ), A., ii, 146.
- Diethylamine, discovery of (HOFMANN LECTURE), T., 661.
- partial oxidation of (DE HAAS), A., i, 122.
- Diethylaminechloroborine (MICHAELIS and LUXEMBOURG), A., i, 344.
- Diethylaminechlorophosphine (MICHAELIS and LUXEMBOURG), A., i, 343.
- Diethylaminechlorosilicene (MICHAELIS and LUXEMBOURG), A., i, 343.
- Diethylamineoxychlorophosphine (MICHAELIS and LUXEMBOURG), A., i, 343.
- Diethylaminethiochlorophosphine (MICHAELIS and LUXEMBOURG), A., i, 343.
- cis-exo*-Diethylaminohexahydro-*o*-toluic acid and its salts (EINHORN), A., i, 551.
- trans-exo*-Diethylaminohexahydro-*o*-toluic acid and its salts (EINHORN), A., i, 551.
- cis-exo*-Diethylaminohexahydro-*p*-toluic acid and its salts (EINHORN), A., i, 552.
- 2 : 3-Diethylaminohydroxytetrahydronaphthalene, hydrochloride, picrate, aurochloride, platinochloride, methiodide, and benzoyl derivative of; picrate of the latter (BAMBERGER and LODTER), A., i, 99.
- Diethylaminophenol, sodium salt, colouring matter obtained from (MEYENBURG), A., i, 292.
- Diethylaminophenonaphthoxazine (MÖHLAU and UHLMANN), A., i, 168.
- Diethylaminophenonaphthoxazone (MÖHLAU and UHLMANN), A., i, 168.
- m*-Diethylaminophenylic carbonate and its salts (MEYENBURG), A., i, 292.
- exo*-Diethylamino-*o*-toluic acid and its salts (EINHORN), A., i, 551.
- exo*-Diethylamino-*p*-toluic acid and its salts (EINHORN), A., i, 551.

- Diethylaniline (HOFMANN LECTURE), T., 598.  
 discovery of (HOFMANN LECTURE), T., 660.  
 magnetic rotatory power, &c., of (PERKIN), T., 1099, 1100, 1208, 1244.  
 melting point of (V. SCHNEIDER), A., ii, 290.  
 action of ethylic bromide on (HOFMANN LECTURE), T., 663.  
 sulphonation of (EVANS), P., 1895, 235.
- Diethylanemonin. See Anemonin.
- Diethylcyanoacetamide (ERRERA), A., i, 529.
- Diethyldiaminonaphthaphenoxazine, zincochloride of [ $\text{NH} : \text{O} : \text{NH}_2 = 1 : 2 : 4$ ;  $\text{NH} : \text{O} : \text{N} \cdot \text{Et}_2 = 1 : 2 : 4$ ] (MÖHLAU and UHLMANN), A., i, 168.
- Diethyldicarboxylglutaric acid. See Heptane-3 : 3 : 5 : 5-tetracarboxylic acid.
- Diethyldiethylenediamine, discovery of (HOFMANN LECTURE), T., 685.
- Diethylenediamine (HOFMANN LECTURE), T., 684, 685.
- Diethylenetriamine, discovery of, and its salts (HOFMANN LECTURE), T., 686.
- Diethylethylenediamine (HINSBERG and STRUPLER), A., i, 47; (SCHNEIDER), A., i, 201.  
 discovery of (HOFMANN LECTURE), T., 685.
- $\alpha\alpha_1$ -Diethylglutaric acid, anilic acid of (AUWERS and SINGHOF), A., i, 642.  
 unimolecular *p*-tolil of (AUWERS and SINGHOF), A., i, 642.  
 bimolecular *p*-tolil of (AUWERS and SINGHOF), A., i, 642.  
*p*-tolilic acid of (AUWERS and SINGHOF), A., i, 642.
- $\alpha\alpha_1$ -Diethylglutaric acids, isomeric (AUWERS and SINGHOF), A., i, 642.
- $\alpha\alpha_1$ -Diethylglutaric anhydride (AUWERS and SINGHOF), A., i, 642.
- d*-Diethylhydantoin (ERRERA), A., i, 529.
- Diethylmalonic acid, ethylic salt, hydrolysis of (HJELT), A., i, 205.
- Diethylmethane. See Pentane.
- Diethyloxamic acid, ethylic salt, preparation of (HOFMANN LECTURE), T., 662.
- Diethyloxamide, preparation of (HOFMANN LECTURE), T., 662.
- Diethylphosphonic acid, preparation of (HOFMANN LECTURE), T., 682.
- Diethylpropyl- $\psi$ -nitrole. See Heptane,  $\delta$ -nitro- $\delta$ -nitroso-.
- 5 : 2-Diethylsaffranine (JAUBERT), A., i, 325.
- Diffusion of metals (ROBERTS-AUSTEN), A., ii, 590.  
 in mercury (HUMPHREYS), T., 243, 1679; P., 1896, 9, 220; (ROBERTS-AUSTEN), P., 1896, 219.
- Difluoryls,  $\alpha$ -,  $\beta$ -, and  $\gamma$ - (HODGKINSON), P., 1896, 111.
- Diformyl- $\alpha$ -hydroxy- $\alpha\beta$ -diphenylethylamine (SÖDERBAUM), A., i, 484.
- Difurfurylidenecyclohexanone (*difurfurylideneketohexamethylene*) (VORLÄNDER and HOBOHM), A., i, 604.
- Difurfurylidenecyclopentanone (*difurfurylideneketopentamethylene*) (VORLÄNDER and HOBOHM), A., i, 604.
- Difurfurylidenetriacetophenone (KOSTANECKI and PODRAJANSKY), A., i, 689.
- Digestion in organs after death (BRONDI), A., ii, 616.  
 action of mustard and pepper on (GOTTLIEB), A., ii, 42.  
 of cellulose, by enzymes (GRÜSS), A., ii, 669.  
 of crude fibre (HOLDEFLEISS), A., ii, 616.  
 of polysaccharides and glucosides by animal secretions (FISCHER and NIEBEL), A., ii, 665.  
 of cane sugar, maltose, and trehalose (BOURQUELOT and GLEY), A., ii, 315.  
 gastric (SÖQUIST), A., ii, 484.  
 influence of salts on (DASTRE), A., ii, 118.  
 saline, of gelatin (DASTRE and FLORESCO), A., i, 196.
- Digitalein, detection of (KELLER), A., ii, 683.
- Digitaligenin, detection of (KILIANI), A., ii, 551; (KELLER), A., ii, 683.
- Digitalin (KILIANI), A., i, 58.  
 crystalline (KILIANI), A., i, 180.  
 detection of (KELLER), A., ii, 683.
- "*Digitalinum verum*," detection of (KILIANI), A., ii, 551.
- Digitalis*, detection of the glucosides in (KILIANI), A., ii, 551.
- Digitogenin (KILIANI), A., i, 58.  
 detection of (KILIANI), A., ii, 551.
- $\beta$ -Digitogenin (KILIANI), A., i, 59.
- Digitonin (KILIANI), A., i, 58.  
 detection of (KILIANI), A., ii, 551; (KELLER), A., ii, 683.
- Digitoxigenin, detection of (KILIANI), A., ii, 551.
- Digitoxin, identity of the so-called  $\alpha$ - and  $\beta$ -modifications (KILIANI), A., ii, 551.



- Digitoxin, detection of (KILIANI), A., ii, 551; (KELLER), A., ii, 683.
- $\beta$ -Digitoxin and its hydrolysis (KILIANI), A., i, 59.
- Digitoxose (KILIANI), A., i, 59.
- Diglucoase, polyanhydride of, in *Colocasia antiquorum* (YOSHIMURA), A., ii, 60.
- Diglycollic acid, thio-, unsymmetrical homologues of (LOVÉN), A., i, 412.
- Diheptylthiocarbamide (PONZIO), A., i, 636, 637.
- Dhippenylcarbamide (CURTIUS), A., i, 38.
- Dhippurylhydrazine (CURTIUS), A., i, 37.
- p*-Dihomopiperonylpyrazine (ANGELI), A., i, 296.
- Dihydracrylic acid, thio- (thiodipropionic acid) (LOVÉN), A., i, 412.
- $\Delta^4,9$ -Dihydrobenzaldehyde from anhydroecgonine dibromide and from tropinone methiodide, identity of (WILLSTÄTTER), A., i, 327.
- Dihydrobenzoic acids. See *Cyclohexadienecarboxylic acids*.
- Dihydrobenzylidenetetraazylhydrazine and its sodium derivative (THIELE and INGLE), A., i, 108.
- Dihydro-*m*-isobutyltoluene. See 1-Methyl-3-isobutylcyclohexadiene.
- Dihydrocscampholytamide, amine, hydrocarbon, alcohol, and ketone derived from (NOYES), A., i, 696.
- Dihydrocampholytic acid, cyano- (HOOGWERFF and VAN DORP), A., i, 314.
- Dihydrocarvone, oxidation of (WALLACH), A., i, 102.
- Dihydrocuminic acid. See 4-*iso*-Propylcyclohexadienecarboxylic acid.
- Dihydrocymene. See Methylisopropylcyclohexadiene.
- Dihydrodicroquimone and its acetyl derivative (RÜGHEIMER and HANKEL), A., i, 688.
- Dihydrodiphenyl (KNOEVENAGEL), A., i, 289.
- Dihydrogranatone, oxidation of (CIAMICIAN and SILBER), A., i, 397.
- Dihydro-*m*-hexyltoluene. See 1-Methyl-3-hexylcyclohexadiene.
- Dihydrohippuroflavindiamide, dianilide, bismethylanilide, and di-*o*-toluidide of (RÜGHEIMER), A., i, 62.
- Dihydrolutidinedicarboxylic acid of Griess and Harrow, real nature of (SCHIFF and BROGIO), A., i, 250, 251.
- iso*-Dihydrolutidinedicarboxylic acid. See 2 : 6-Dimethyl-1 : 4-dihydropyridine-3 : 5-dicarboxylic acid.
- Dihydrophenazine hydrochloride, preparation of (HINSBERG and HIMMELSCHNEIN), A., i, 685.
- n*-Dihydro- $\beta$ -phenotriazine: its salts, diacetyl and dibenzoyl derivatives (PINNOW and SAMANN), A., i, 366.
- Dihydrophenylcoumaran (HARRIES and BUSSE), A., i, 302.
- Dihydrophthalic acid. See *cyclo*-Hexadiene-1 : 2-dicarboxylic acid.
- Dihydropolystichic acid (POULSSON), A., i, 387.
- Dihydroquinazoline (GABRIEL and STELZNER), A., i, 507.
- Dihydroresorcinol. See 1 : 3-Dihydroxycyclohexadiene.
- iso*-Dihydrotetrazine, derivatives of (CURTIUS), A., i, 39.
- Dihydrotoluene. See Methylcyclohexadiene.
- Dihydrotoluic acids. See Methylcyclohexadienecarboxylic acids.
- Dihydroxyacetophenone (m. p. 178°) (CLAUS and HUTH), A., i, 227.
- 2 : 4-Dihydroxyacetophenone, *tribromo*- (SEGALLE), A., i, 613.
- dichloro*- (SEGALLE), A., i, 613.
- iodo*- (SEGALLE), A., i, 613.
- Dihydroxyaposafranone (FISCHER and HEPP), A., i, 324.
- 1 : 3-Dihydroxybenzene. See Resorcinol.
- Dihydroxybenzophenone (? m. p. 127°) (GRAEBE and ULLMANN), A., i, 440.
- Di-o*-hydroxybenzylidenediaminopentamethylenetetramine (DUDEN and SCHARFF), A., i, 123.
- Dihydroxybutane, tertiary (HENRY), A., i, 4.
- $\alpha$ -Dihydroxydihydrocampholenic acid, distillation of (TIEMANN), A., i, 248.
- Dihydroxydimethyladipic acids, stereoisomeric (ZELINSKY and ISAEFF), A., i, 413.
- Dihydroxydimethylglutaric acid (AUWERS and SINGHOF), A., i, 642.
- Dihydroxydiphenylaminocarboxylic acid, dibromo- [NH : Br<sub>2</sub> : OH = 1 : 3 : 5 : 4; NH : OH : COOH = 1 : 4 : 3] (MÖHLAU and UHLMANN), A., i, 167.
- Di-*o*-hydroxydiphenylcarbamide (STRUVE and RADENHAUSEN), A., i, 36.
- Di-*m*-hydroxydiphenylcarbamide (STRUVE and RADENHAUSEN), A., i, 36.
- Di-*p*-hydroxydiphenylcarbamide (STRUVE and RADENHAUSEN), A., i, 36.
- Dihydroxydiphenylglutaric acid (JAPP and LANDER), P., 1896, 108.

- 1 : 2-Dihydroxyflavone and its acetyl compound (FRIEDLÄNDER and RÜDT), A., i, 440.  
 acid compounds of (PERKIN), T., 1443; P., 1896, 167.  
 constitution of (KESSELKAUL and KOŠTANECKI), A., i, 606.
- Dihydroxyfumaric acid. See Dihydroxymaleic acid.
- Dihydroxycyclohexadiene (*dihydroresorcinol*), synthesis and hydrolysis of (VORLÄNDER), A., i, 20.
- 2 : 8-Dihydroxyhexahydrocymene. See Dihydroxymethylisopropylcyclohexane.
- $\alpha\beta$ -Dihydroxyisohexoic acid (BRAUN), A., i, 594.
- Dihydroxyhydrolapachol, action of sulphuric acid on (HOOKER), T., 1368.
- Dihydroxylamine hydriodide (DUNSTAN and GOULDING), T., 841; P., 1896, 73.
- Dihydro-*m*-xylene. See 1 : 3-Dimethylhexadiene.
- Dihydroxymaleic acid (FENTON), T., 547; P., 1896, 67.  
 constitution of (FENTON), T., 556.  
 isomeric form of (FENTON), T., 557.  
 $\alpha$ - and  $\beta$ -modifications (FENTON), T., 560.  
 action of acetic anhydride, chloride, and benzoic chloride on (FENTON), T., 550, 551, 552; P., 1896, 68.  
 action of aniline on (FENTON), T., 552.  
 action of bromine on (FENTON), T., 547.  
 action of ethylic bromide on (FENTON), T., 554.  
 action of hydrogen bromide, chloride, and iodide on (FENTON), T., 547, 553, 555, 558; P., 1896, 68.  
 action of hydroxylamine and phenylhydrazine on (FENTON), T., 548, 549; P., 1896, 68.  
 action of water on (FENTON), T., 547.
- Dihydroxymaleic acid, aniline salts (FENTON), T., 551, 552.  
 diethylic salt (FENTON), T., 554.  
 behaviour of, with dehydrating agents (FENTON), T., 555.  
 action of phenylhydrazine and hydroxylamine on (FENTON), T., 549; P., 1896, 68.  
 dimethylic salt, diacetyl derivative (FENTON), T., 550.  
 action of acetic chloride, of phenylhydrazine, and hydroxylamine on (FENTON), T., 549; P., 1896, 68.  
 phenylhydrazine salt, and action of heat on (FENTON), T., 548; P., 1896, 68.
- Dihydroxymaleic anhydride, diacetyl and dibenzoyl derivatives of (FENTON), T., 551.
- 1 : 3 : 1'-Dihydroxymethylanthracene. See Methylpurpuroxanthin.
- 4 : 4'-Dihydroxy-2-methyldiphenyl (JACOBSON and NANNINGA), A., i, 93.
- 3 : 5 : 1-Dihydroxymethylcyclohexadiene (*m-methyldihydroresorcinol*) and its dioxime (KNOEVENAGEL), A., i, 289.
- 2 : 3-Dihydroxy-1-methylphenazine (KEHRMANN and TIKHVINSKY), A., i, 511.
- Dihydroxymethylisopropylcyclohexane (2 : 8-*dihydroxyhexahydrocymene*), 1 : 6-dibromo- (WALLACH), A., i, 571.
- 1 : 3-Dihydroxynaphthalene, acetyl derivative of (FRIEDLÄNDER and RÜDT), A., i, 569.
- 1 : 3-Dihydroxynaphthalene-3'-sulphonic acid, sodium salt (FRIEDLÄNDER and RÜDT), A., i, 569.
- 2 : 4-Dihydroxynaphthalene, 1-amino- (KEHRMANN and HERTZ), A., i, 567.
- 1 : 2'-Dihydroxynaphthalene, from 1 : 2' : 2-dihydroxynaphthoic acid (FRIEDLÄNDER and ZINBERG), A., i, 244.
- Dihydroxy- $\beta$ -naphthaquinone, discovery of (HOFMANN LECTURE), T., 621.
- 1 : 2 : 3-Dihydroxynaphthoic acid, methylic and ethylic salts (MÖHLAU and KRIEBEL), A., i, 242.
- 1 : 2' : 2-Dihydroxynaphthoic acid, barium salt (FRIEDLÄNDER and ZINBERG), A., i, 244.
- 1 : 3 : 5-Dihydroxyphenylcyclohexane (*m-phenylhexahydroresorcinol*) (KNOEVENAGEL), A., i, 289.
- Di-*p*-hydroxyphenylmalonamide and its diacetyl derivative (CASTELLANETA), A., i, 368.
- Di-*p*-hydroxyphenyloxamide and its diacetyl derivative (CASTELLANETA), A., i, 368.
- 1 : 2-Dihydroxyphenyl-*p*-phenylsulphone (HINSBERG and HIMMELSCHN), A., i, 685.
- 1 : 4-Dihydroxyphenylsulphone, preparation of (HINSBERG and HIMMELSCHN), A., i, 685.
- Dihydroxyphylloporphyrin (SCHUNCK and MARCHLEWSKI), A., i, 496.
- 2 : 6-Dihydroxypyridine-4-carboxylic acid. See Citrazinic acid.
- 3 : 4-Dihydroxyquinoline, 1 : 2-dichloro-, and its hydrochloride (ZINCKE and WEIDERHOLD), A., i, 501.

- 1 : 2'-Dihydroxyquinoline: its hydrochloride and acetyl derivatives (DIAMANT), A., i, 105.
- 3 : 4'-Dihydroxyquinoline and its aurochloride (HIRSCH), A., i, 626.
- Dihydroxyquinone, condensation of, with ethyl-*o*-phenylenediamine and phenyl-*o*-phenylenediamine (KEHRMANN and FÜHNER), A., i, 511.
- Dihydroxystearic acid, separation of, into its optically active constituents (FREUNDLER), A., i, 596.
- d*-Dihydroxystearic acid, ethylic salt (FREUNDLER), A., i, 596.
- l*-Dihydroxystearic acid, ethylic salt (FREUNDLER), A., i, 596.
- strychnine salt (FREUNDLER), A., i, 596.
- 1 : 2' : 4 : 2-Dihydroxysulphonaphthoic acid, sodium hydrogen, and hydrogen aniline salts (FRIEDLÄNDER and ZINBERG), A., i, 244.
- Dihydroxytetramethylstilbene, *tetra*-bromo- (AUWERS and MARWEDEL), A., i, 150; (AUWERS and AVERY), A., i, 151; (AUWERS and HOFF), A., i, 422.
- bromide (AUWERS and HOF), A., i, 422.
- ethyl ether (AUWERS and MARWEDEL), A., i, 150.
- Dihydroxytetraphenylethanedicarboxylic acid, dilactone of (ULLMANN), A., i, 563.
- Dihydroxytoluquinone, condensation of, with *o*-phenylenediamine and phenyl-*o*-phenylenediamine (KEHRMANN and FÜHNER), A., i, 512.
- Dihydroxytrimethylglutaric acid, preparation of (ZELINSKY and TSCHUGAEW), A., i, 135.
- action of lead on (ZELINSKY and TSCHUGAEW), A., i, 135.
- Dihydroxytropidine, oxidation of (WILLSTÄTTER), A., i, 65.
- $\alpha$ -Diketochloropyrhydrindone,  $\beta$ -*d*-chloro- (ZINCKE and WINZHEIMER), A., i, 501.
- Diketone,  $C_6H_8O(?)$ , from quercitol (KILIANI and SCHÄFER), A., i, 586.
- Diketopiperazine, molecular symmetry of (GROTH), A., ii, 159.
- $\alpha$ -Diketopyrhydrindene,  $\beta$ -*d*-chloro-, and its platinochloride (ZINCKE and WINZHEIMER), A., i, 500.
- 1 : 2-Diketoquinolinephenazine, hydrate of (ZINCKE and WIEDERHOLD), A., i, 502.
- Diketotetrahydroquinazoline-2-carboxylic acid and its salts (NIEMEN-TOWSKI), A., i, 578.
- Dilactylamide (LOVÉN), A., i, 412.
- Dilactylic acids, thio-, stereoisomeric (LOVÉN), A., i, 412.
- "Dilute coloration" of minerals (WEINSCHENK), A., ii, 654.
- Dimesityldinitrosacyl (BAUM), A., i, 222.
- 2 : 4-Dimethoxybenzaldehyde (BOUYEAULT), A., i, 649.
- o*-Dimethoxybenzene, magnetic rotatory power, &c., of (PERKIN), T., 1127, 1135, 1159, 1158, 1240.
- m*-Dimethoxybenzene, magnetic rotatory power, &c., of (PERKIN), T., 1127, 1159, 1187, 1240.
- p*-Dimethoxybenzene, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1136, 1188, 1240.
- 3 : 4-Dimethoxybenzoic acid, 2-cyano- (HOOGWERFF and VAN DORP), A., i, 315.
- 2 : 3-Dimethoxybenzoic acid, 6-cyano- (HOOGWERFF and VAN DORP), A., i, 315.
- 3 : 3-Dimethoxybenzophenone, 4 : 4-*d*-bromo- (GATTERMANN), A., i, 173.
- 4 : 4-*d*-chloro- (GATTERMANN), A., i, 173.
- 3 : 3-Dimethoxy-4 : 4-dimethylthiobenzophenone (GATTERMANN), A., i, 173.
- Dimethoxydiphenylmethane (MACKENZIE), T., 987; P., 1896, 117.
- $\beta$ -*m*-Dimethoxydiphenyloxazole and its salts (MINOVIĆ), A., i, 704.
- Di-*p*-methoxyphenylmalonamide (CASTELLANETA), A., i, 368.
- Di-*p*-methoxyphenyloxamide (CASTELLANETA), A., i, 368.
- Dimethoxyquinol, *d*-chloro-, dibenzoate, oxide of (JACKSON and GRINDLEY), A., i, 155.
- 3 : 4'-Dimethoxyquinoline (HIRSCH), A., i, 626.
- Dimethoxyquinone, *d*-bromo-, dimethylhemiacetal (JACKSON and GRINDLEY), A., i, 156.
- d*-chloro-, dibenzoyldimethylacetal (JACKSON and GRINDLEY), A., i, 155.
- diethylhemiacetal (JACKSON and GRINDLEY), A., i, 19.
- dimethylhemiacetal (JACKSON and GRINDLEY), A., i, 19.
- 3 : 3-Dimethoxythiobenzophenone, 4 : 4-*d*-bromo- (GATTERMANN), A., i, 173.
- 4 : 4-*d*-chloro- (GATTERMANN), A., i, 173.
- 4 : 4-Dimethoxythiobenzophenone (GATTERMANN), A., i, 172.
- Dimethoxytriphenylcarbinolcarboxylic acid (GRANDE), A., i, 564.

- Dimethoxytriphenylmethanecarboxylic acid and its salts (GRANDE), A., i, 564.
- di*bromo- (GRANDE), A., i, 564.
- Dimethoxy-1 : 3 : 4-xyleneol, *tri*bromo- (AUWERS and CAMPENHAUSEN), A., i, 424.
- Dimethylacetoacetic acid, ethylic salt, action of ethylic bromacetate on (PERKIN and THORPE), P., 1896, 156.
- Dimethylacetylacetone, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1172, 1237.
- $\beta\beta$ -Dimethylacrylic acid. See Pentenoic acid.
- Dimethylisooallylene. See Pentinene.
- Dimethylallylthiocarbamide dibromide (GADAMER), A., i, 140.
- See also  $\mu$ -Dimethylpentiazoline,  $\gamma$ -bromo-.
- chlorobromide (GADAMER), A., i, 140.
- compounds of, with inorganic salts (GADAMER), A., i, 141.
- Dimethylamine, behaviour of, with Nessler's reagent (DELÉPINE), A., i, 589.
- partial oxidation of (DE HAAS), A., i, 122.
- dibromide (REMSSEN and NORRIS), A., i, 337.
- hydrochloride and picrate (DELÉPINE), A., i, 589.
- Dimethylamine, *di*amino-, tribenzoyl derivative of (DUDEN and SCHARFF), A., i, 124.
- thio- (SCHENCK), A., i, 427.
- Dimethylaminoacetone (STOERMER and POGGE), A., i, 408.
- Dimethylaminobenzenyl- $\beta$ -naphthyl-imidine: its hydriodide and picrate (VON PECHMANN), A., i, 31.
- Dimethylaminobenzenylphenylimidine: its hydriodide and picrate (VON PECHMANN), A., i, 32.
- 4-Dimethylaminodiphenazone, 4-bromo- [ $N : Br_2 : O = 1 : 3 : 5 : 4 ; N : NMe_2 = 1 : 4$ ] (MÖHLAU and UHLMANN), A., i, 166.
- Dimethylaminoformic acid, methylic salt, action of nitric acid on (FRANCHIMONT), A., i, 602.
- $\alpha$ -Dimethylaminohexoic acid (DUVILLIER), A., i, 80.
- 2 : 3-Dimethylaminohydroxytetrahydronaphthalene, hydrochloride, picrate, aurochloride, platinochloride, methiodide, and benzoyl derivative of (BAMBERGER and LODTER), A., i, 99.
- Dimethylaminonaphthaphenoxazine, zincchloride of [ $NH : O : NH_2 = 1 : 2 : 4 ; NH : O : NMe_2 = 1 : 2 : 4$ ] (MÖHLAU and UHLMANN), A., i, 167.
- Dimethylaminophenonaphthoxazine [ $NE : O : NH = 1 : 2 : 4 ; N : O : NMe_2 = 1 : 2 : 4$ ] and its hydrochloride (MÖHLAU and UHLMANN), A., i, 167.
- Dimethylaminophenonaphthoxazone [ $N : O : O = 1 : 2 : 4 ; N : O : NMe_2 = 1 : 2 : 4$ ] and its hydrochloride (MÖHLAU and UHLMANN), A., i, 168.
- m*-Dimethylaminophenyl carbonate and its salts (MEYENBURG), A., i, 292.
- Dimethylaminophenylphthalide (EBERT), A., i, 441.
- Dimethylanemonin. See Anemonin.
- Dimethylaniline, preparation of (HOFMANN LECTURE), T., 624, 625.
- magnetic rotatory power, &c., of (PERKIN), T., 1064, 1099, 1100, 1108, 1156, 1207, 1232, 1244.
- condensation of, with *o*-phthalaldehydic acid (EBERT), A., i, 441.
- sulphonation of (EVANS), P., 1895, 235.
- hydrochloride, magnetic rotatory power, &c., of (PERKIN), T., 1110, 1158, 1218, 1220, 1221, 1235, 1246.
- derivative of bromo- $\psi$ -cumenol. See  $\psi$ -Cumenol.
- Dimethylaniline,  $\alpha$ -diamino- (SCHUSTER and PINNOW), A., i, 427.
- p*-bromo- and silicon chloroform, or silicon tetrachloride, action of sodium on (COMBES), A., i, 417.
- tetra*bromo- (EVANS), P., 1895, 235, 236.
- $\beta$ -dinitro- (SCHUSTER and PINNOW), A., i, 427.
- 2 : 4-dinitro- (EVANS), P., 1895, 236.
- nitroso-, behaviour towards benzene-sulphonic chloride (BÖRNSTEIN), A., i, 541.
- compound of, with 1 : 3 : 5-tribromophenol (EDELEANU and ENESCU), A., i, 359.
- compound of, with 1 : 3 : 5-trichlorophenol (EDELEANU and ENESCU), A., i, 359.
- compound of, with trichlororesorcinol (EDELEANU and ENESCU), A., i, 360.
- Dimethylaniline-*m*-sulphonic acid, *p*-bromo- (EVANS), P., 1895, 236.
- di*bromo- (EVANS), P., 1895, 236.
- dinitro- (EVANS), P., 1895, 236.
- Dimethylaniline-*p*-sulphonic acid, preparation of (EVANS), P., 1895, 235.
- bromo-, and its dibromide (EVANS), P., 1895, 235.
- o*-nitro- (EVANS), P., 1895, 236.
- Dimethylanilindibenzoyldihydroxy-

- nn*-dihydropyrazine. See Dihydrohippurroflavin, bismethylanilide of.
- Dimethylapionol and its acetate (CIAMICIAN and SILBER), A., i, 608.
- Dimethylapionolcarboxylic acid (CIAMICIAN and SILBER), A., i, 608.
- 4 : 3'-Dimethylazobenzene (JACOBSON, MICHAELIS, and NANNINGA), A., i, 98.
- 2 : 4-Dimethylazobenzene (JACOBSON, MICHAELIS, and NANNINGA), A., i, 97.
- Dimethylazammoniumbenzoic acid, chloride of, and its platinochloride (ZINCKE and HELMERT), A., i, 550.
- betaine of (ZINCKE and HELMERT), A., i, 550.
- Dimethylbarbituric acid, bromonitro- (ANDREASCH), A., i, 89.
- chloronitro- (ANDREASCH), A., i, 89.
- nitro-, action of alkalis on (ANDREASCH), A., i, 89.
- 2 : 4-Dimethylbenzaldehyde (BOUVEAULT), A., i, 649.
- Dimethylbenzoic acids. See Mesitylenic acid; Xylic acids.
- o*-Dimethylbenzoylpropionic acid (MUHR), A., i, 231.
- m*-Dimethylbenzoylpropionic acid (MUHR), A., i, 231.
- p*-Dimethylbenzoylpropionic acid (MUHR), A., i, 231.
- $\alpha\alpha$ -Dimethylecanosuccinic acid, ethylic salt (BONE and PERKIN), T., 259; P., 1896, 63.
- Dimethylcarballylic acid, cyano-, hydrolysis of ethylic salt (ZELINSKY and TSCHERNOSWITOFF), A., i, 281.
- Dimethylecanacetamide (ERBERA), A., i, 529.
- Dimethylecanuric acid (SCHIFF), A., i, 530.
- Dimethyl-diacylpyrone (VAILLANT), A., i, 591.
- Dimethyl-diethylammonium iodide, preparation of (HOFMANN LECTURE), T., 670.
- 2 : 6-Dimethyl-1 : 4-dihydropyridine-3-carboxylic acid : its hydrochloride and platinochloride and ethylic salt (SCHIFF and ROSIO), A., i, 250.
- 2 : 6-Dimethyl-1 : 4-dihydropyridine-3 : 5-dicarboxylic acid : its ethylic salt and nitroso-derivative (SCHIFF and ROSIO), A., i, 251.
- 1 : 2-Dimethyl-4 : 5-diphenylhexamethylene. See Dimethyldiphenylcyclohexane.
- Dimethyldipropylene- $\psi$ -hydrazodicarbothiamide (FREUND and HEILBRUN), A., i, 416.
- Dimethylene compound from *o*-aminobenzylphenylhydrazine and formaldehyde (BUSCH), A., i, 508.
- Dimethylenegluconic acid and its salts (HENNEBERG and TOLLENS), A., i, 645.
- Dimethylethylcarbamide, sodium derivative, molecular weight of (BECKMANN and SCHLEIBS), A., i, 124.
- Dimethylethylcarbinol. See Amylic alcohols.
- Dimethylethylenediamine (SCHNEIDER), A., i, 200.
- Dimethylethylenedinitrosamine (SCHNEIDER), A., i, 201.
- Dimethylethylsuccinic acid, electrical conductivity of (AUWERS and SCHLOSSER), A., i, 639.
- p*-Dimethylethyl-octohydronaphthalene, formation of, from santonin (ANDREOCCI), A., i, 183.
- Dimethylfumaric acid (*methylmesaconic acid*) (FITTIG), A., i, 599.
- anhydride, refraction equivalent of (ANDERLIN), A., ii, 229.
- Dimethylfraxetin (BIGINELLI), A., i, 370.
- Dimethylgentisaldehyde, preparation of (BOUVEAULT), A., i, 649.
- $\beta\beta$ -Dimethylglutaranil (PERKIN), T., 1476.
- $\alpha\beta$ -Dimethylglutaranilic acid (MONTMARTINI), A., i, 667.
- $\beta\beta$ -Dimethylglutaranilic acid (PERKIN), T., 1476; P., 1896, 170.
- $\alpha\beta$ -Dimethylglutaranilide (MONTMARTINI), A., i, 667.
- $\alpha\alpha$ -Dimethylglutaric acid (REFORMATSKY), A., i, 206.
- (fumaroid) cyclic ethylenic salt of (AUWERS and SINGHOF), A., i, 641.
- cyclic methylenic salt of (AUWERS and SINGHOF), A., i, 641.
- $\alpha\alpha_1$ -Dimethylglutaric acids, resolution of a mixture of (BONE and PERKIN), T., 268; P., 1896, 63.
- $\alpha\beta$ -Dimethylglutaric acid (MONTMARTINI), A., i, 667.
- $\beta\beta$ -Dimethylglutaric acid and salts (PERKIN and GOODWIN), T., 1473; P., 1896, 170.
- high dissociation constant of (PERKIN), T., 1461.
- action of acetic anhydride on (PERKIN and GOODWIN), T., 1475.
- ethylic salt (PERKIN and GOODWIN), T., 1475.
- $\alpha\alpha_1$ -Dimethylglutaric anhydride, hydrolysis of (AUWERS and SINGHOF), A., i, 641.

- $\alpha\alpha$ -Dimethylglutaric anhydride, *dibromo*-, action of aniline on (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.  
 action of bases on (AUWERS, SCHIFFER, and SINGHOF), A., i, 643.  
 action of caustic soda on (AUWERS and SINGHOF), A., i, 642.
- $\alpha\beta$ -Dimethylglutaric anhydride (MONTMARTINI), A., i, 667.
- $\beta\beta$ -Dimethylglutaric anhydride (PERKIN and GOODWIN), T., 1475; P., 1896, 170.  
 action of aniline on (PERKIN), T., 1476.
- $\alpha\alpha$ -Dimethylglutaro-*p*-tolil, unimolecular (AUWERS and SINGHOF), A., i, 641.  
 bimolecular (AUWERS and SINGHOF), A., i, 641.
- Dimethylglyoxime and its peroxide (RIMINI), A., i, 276.
- 1 : 3-Dimethylcyclohexadiene (*dihydro-m-xylene*) (KNOEVENAGEL), A., i, 288.
- 1 : 3-Dimethylcyclohexane (*hexahydro-m-xylene*) from camphopyric acid (MARSH and GARDNER), T., 84; P., 1895, 206.
- 1 : 2-Dimethylcyclohexane-4-carboxylic acid (*hexahydro-p-xylic acid*) and its ethylic salt, chloride, and anilide (BENTLEY and PERKIN), P., 1896, 79.  
 bromo-, ethylic salt of (BENTLEY and PERKIN), P., 1896, 79.
- 2 : 5-Dimethylhexane-3-ol-4-one and its oxime (URBAIN), A., i, 590.
- 1 : 3-Dimethylcyclohexanone (NOYES), A., i, 696.
- 3 : 4-Dimethylcyclohexenecarboxylic acid (*tetrahydro-p-xylic acid*) [ $\text{Me}_2 : \text{COOH} = 4 : 3 : 1$ ] (BENTLEY and PERKIN), P., 1896, 79.  
 dibromide (BENTLEY and PERKIN), P., 1896, 79.
- 1 : 3-Dimethylcyclohexenol-5 and its dibromide, acetyl derivative, and urethane (KNOEVENAGEL), A., i, 287.
- Dimethylhomocatechol, magnetic rotatory power, &c., of (PERKIN), T., 1127, 1135, 1188, 1240.
- $\alpha$ -Dimethylhydantoin (ERRERA), A., i, 529.
- 2 : 4-Dimethylhydrazobenzene (JACOBSON, MICHAELIS, and NANNINGA), A., i, 98.
- 4 : 3'-Dimethylhydrazobenzene (JACOBSON, MICHAELIS, and NANNINGA), A., i, 98.
- Dimethylindirubin (SCHUNCK and MARCHLEWSKI), A., i, 96.
- 1 : 3-Dimethylketopentamethylene. See 1 : 3-Dimethylcyclopentanone.
- $\alpha\alpha$ -Dimethyllevulinic acid, nitrile of, hydrolysis of (AUWERS and ZIEGLER), A., i, 643.
- Dimethylmaleic acid (*pyrocinchonic acid*), isomerides of (FITTIG), A., i, 599.
- Dimethylmaleic anhydride (BISCHOFF), A., i, 469, 470.
- Dimethylmalonamide and the biuret reaction (SCHIFF), A., i, 632.
- Dimethylmalonic acid (*iso-succinic acid*) (JUST), A., i, 404.  
 methylamides of, action of nitric acid on (FRANCHIMONT), A., i, 602.  
 ethylic salt, hydrolysis of (HJELT), A., i, 205.
- Dimethylmalonimide, oxime of (ANDREASCH), A., i, 89.  
 bromonitro- (ANDREASCH), A., i, 89.  
 chloronitro- (ANDREASCH), A., i, 89.  
 nitro- (ANDREASCH), A., i, 89.  
 action of halogens on (ANDREASCH), A., i, 89.
- 1 : 4-Dimethylnaphthalene and its picrate (CANNIZZARO and ANDREOCCI), A., i, 488.
- 2-nitroso- (CANNIZZARO and ANDREOCCI), A., i, 489.  
 bisnitroso-, acetyl derivative (CANNIZZARO and ANDREOCCI), A., i, 489.
- 3 : 3'-Dimethylnaphthalene, from 2-acetyl-1:1'-dihydroxy-3 : 3'-dimethylnaphthalene, and its oxidation (COLLIE and WILSMORE), T., 298; P., 1896, 47.
- 1 : 4-Dimethylnaphthaquinonepropionic acid (ANDREOCCI), A., i, 183.
- 1 : 4 : 2-Dimethylnaphthol from the santonous acids (ANDREOCCI), A., i, 185; (CANNIZZARO and ANDREOCCI), A., i, 488.  
 oxy-, phenylhydrazone, oxime, and acetyl derivative of (CANNIZZARO and ANDREOCCI), A., i, 489.
- 1 : 4 : 2-Dimethylnaphthylamine, from nitrosodimethylnaphthalene (CANNIZZARO and ANDREOCCI), A., i, 489.  
 acetyl and formyl derivatives, hydrochloride, platinumchloride, and sulphate (CANNIZZARO and ANDREOCCI), A., i, 488.
- Dimethylnitramine (FRANCHIMONT and VAN ERP), A., i, 298.  
 action of fused potash on (VAN ERP), A., i, 276.
- 2 : 6-Dimethyl-2 : 7-octadiene-6-ol. See Methylallylhexenylcarbinol.
- 2 : 6-Dimethyloctan-3-ol-ic acid, silver

- salt, and lactone (VON BAEYER), A., i, 247.
- 2 : 6-Dimethyloctan-3-onoic acid : its semicarbazone (VON BAEYER), A., i, 247.
- Dimethylloxamide, action of nitric acid on (FRANCHIMONT), A., i, 602.
- dinitro- (THIELE and MEYER), A., i, 407.
- 2 : 5-Dimethylloxazole and its hydrochloride, platinochloride, aurochloride, and mercurochloride (SCHUFTAN), A., i, 262.
- 2 : 6-Dimethyl-3-oximidoctanic acid, melting point of (VON BAEYER), A., i, 247.
- 1 : 3-Dimethylcyclopentane (1 : 3-dimethylpentamethylene) (ZELINSKY and RUDSKY), A., i, 286.
- 1 : 3-Dimethylcyclopentanol (ZELINSKY and RUDSKY), A., i, 286.
- 1 : 3-Dimethylcyclopentanone (ZELINSKY and RUDSKY), A., i, 286.
- $\mu$ -Dimethylpenthiazoline,  $\gamma$ -bromo-, probable identity of, with dimethylallylthiocarbamide dibromide (DIXON), T., 854; P., 1896, 100.
- 2 : 6-Dimethylpiperidine-3 : 5-dicarboxylic acid (SCHIFF and PROSIO), A., i, 250.
- Dimethylpropanetricarboxylic acid. See Pentanetricarboxylic acids.
- Dimethylpropylcarbinol. See Hexylic alcohols.
- Dimethylisopropylcarbinol. See Hexylic alcohols.
- Dimethylisopropylethylene. See Heptylenes.
- $\alpha$ -Dimethylpropyl- $\psi$ -nitrole. See *iso*-Pentane,  $\beta$ -nitro- $\beta$ -nitroso-.
- Dimethylpropylsuccinic acid, electrical conductivity of (AUWERS and SCHLOSSER), A., i, 639.
- Dimethylprotocatechuic acid, existence of, in *Cratægus oxyacantha* (PERKIN and HUMMEL), T., 1571; P., 1896, 186.
- 1 : 4-Dimethylpyrazolone-4-carboxylic acid (RUHEMANN), A., i, 505.
- 2 : 6-Dimethylpyridine-3 : 5-dicarboxylic acid (*lutidinedicarboxylic acid*), ethylic salt and its picate (SCHIFF and PROSIO), A., i, 250.
- 2 : 6-Dimethylpyridine-4 : 5-dicarboxylic acid from hydroxytrimethylisoquinoline (COLLIE and WILLSMORE), T., 303; P., 1896, 47.
- 2 : 4-Dimethylpyrroline, 3 : 5-diacetyl and 3 : 5-dicinnamoyl derivatives of (ZANETTI), A., i, 249.
- Dimethylquinol. See *p*-Dimethoxybenzene.
- Dimethylresorcinol. See *m*-Dimethoxybenzene.
- 5 : 2'-Dimethylsafranin and its diethyl derivative (JAUBERT), A., i, 325.
- p*-Dimethylstilbene, preparation of (BOUVEAULT), A., i, 650.
- $\alpha\alpha$ -Dimethylsuccinanil (AUWERS and SCHLOSSER), A., i, 640.
- $\alpha\alpha$ -Dimethylsuccinanic acid (AUWERS and SCHLOSSER), A., i, 640.
- $\alpha\alpha$ -Dimethylsuccinic acid from campholenic acid (BÉHAL), A., i, 179.
- from eucaryone (VON BAEYER), A., i, 246.
- electrical conductivity of (AUWERS and SCHLOSSER), A., i, 640.
- cis*- $\alpha\beta$ -Dimethylsuccinic acid from ethylic methylmalonate and ethylic  $\alpha$ -bromopropionate (BONE and PERKIN), T., 262; P., 1896, 64.
- conversion of, into *trans*dimethylsuccinic acid (BONE and PERKIN), T., 264; P., 1896, 64.
- calcium salt (BONE and PERKIN), T., 261; P., 1896, 64.
- amyl salts, rotatory power of (WALDEN), A., ii, 633.
- cis*- $\alpha\beta$ -Dimethylsuccinic anhydride from *cis*- and *trans*-modifications (BONE and PERKIN), T., 264; P., 1896, 64.
- trans*- $\alpha\beta$ -Dimethylsuccinic acid from ethylic methylmalonate and  $\alpha$ -bromopropionate (BONE and PERKIN), T., 262; P., 1896, 64.
- and its ferric, copper, lead, silver, calcium salts (BONE and PERKIN), T., 260; P., 1896, 64.
- amyl salt, rotatory power of (WALDEN), A., ii, 633.
- trans*- $\alpha\beta$ -Dimethylsuccinic anhydride (BONE and PERKIN), T., 266; P., 1896, 64.
- $\alpha\alpha$ -Dimethylsuccino- $\beta$ -naphthil (AUWERS and SCHLOSSER), A., i, 640.
- $\alpha\alpha$ -Dimethylsuccino- $\beta$ -naphthilic acid (AUWERS and SCHLOSSER), A., i, 640.
- Dimethylsuccino-*p*-tolil (AUWERS and SCHLOSSER), A., i, 640.
- Dimethylsuccino-*p*-tolilic acid (AUWERS and SCHLOSSER), A., i, 640.
- Dimethyltetrahydropyrone-dicarboxylic acid, ethylic salt (PETRENKO-KRITSCHENKO and STANISCHESKY), A., i, 471, 472.
- Dimethyl-*o*-toluidine, magnetic rotatory power, &c., of (PERKIN), T., 1108, 1138, 1156, 1211, 1233, 1245.
- hydrochloride, magnetic rotatory power, &c., of (PERKIN), T., 1111, 1131, 1139, 1222, 1246.

- Dimethyl-*p*-toluidine, magnetic rotatory power, &c., of (PERKIN), T., 1108, 1138, 1156, 1211, 1233, 1245.
- hydrochloride, magnetic rotatory power, &c., of (PERKIN), T., 1111, 1131, 1139, 1222, 1246.
- nitration of (ROMBURGH), A., i, 478.
- m*-nitro-, and its reduction products (PINNOW), A., i, 161.
- d*-nitro- (PINNOW), A., i, 161.
- Dimethyl-*p*-toluidinephenylthiocarbamide (PINNOW), A., i, 162.
- Dimethyl-3 : 4-tolylene-diamine : its acetyl derivative and salts (PINNOW), A., i, 161.
- Dimethyltricarballic acids, stereoisomeric (ZELINSKY and TSCHERNOSWITOFF), A., i, 281.
- electric conductivities of (ZELINSKY), A., i, 349.
- Dimethyluramil, thio- (FISCHER), A., i, 143.
- Dimethyluric acid, action of ammonium sulphide on (FISCHER), A., i, 143.
- $\gamma$ -Dimethyluric acid (FISCHER and ACH), A., i, 12.
- $\delta$ -Dimethyluric acid (FISCHER), A., i, 13.
- Dimethyluric acid (m. p. 370°) (FISCHER and ACH), A., i, 12.
- Dimethylvioluric acid and its sodium salt (FISCHER and ACH), A., i, 263.
- action of potash and of barium hydroxide on (ANDREASCH), A., i, 88, 89.
- 4 : 5-Dimethylxanthone, action of zinc and acetic acid on (GURGENJANZ and KOSTANECKI), A., i, 52.
- 2 : 7-Dimethylxanthone, action of zinc and acetic acid on (GURGENJANZ and KOSTANECKI), A., i, 52.
- Dimorphism of ice (BARENDRECHT), A., ii, 417.
- Dinaphthacridone (MÖHLAU), A., i, 243.
- $\alpha$ -Dinaphthalidocitric acid, oxidation of (GASSMANN), A., i, 488.
- Di- $\beta$ -naphthylamine (GASSMANN), A., i, 488.
- $\beta$ -Dinaphthylbenzylidenic oxide (MERCK), A., i, 52.
- Dinaphthylbutenone. See Diacenaphthylidenone.
- $\beta$ -Dinaphthylpropylenedisulphone, isomeric of (TROEGER and ARTMANN), A., i, 570.
- $\beta$ -Dioxymethylpurin (FISCHER), A., i, 13.
- chloro- (FISCHER), A., i, 13.
- Dicyclopentadiene and its nitrosochloride and nitrosate (KRAEMER and SPILKER), A., i, 290.
- Dipentene from geraniol and formic acid (BERTRAM and GILDEMEISTER), A., i, 382.
- from terpineol (WALLACH), A., i, 572.
- constitution of (TILDEN), T., 1014.
- hydrochloro-, nitrosochloride, behaviour of, towards hydrogen chloride (VON BAEYER), A., i, 246.
- Diphenacyl. See Diphenylethylene diketone.
- Diphenazone-*o*-hydroxycarboxylic acid, dibromo-, and its sodium salt  
 $[N : Br_2 : O = 1 : 3 : 5 : 4 ;$   
 $N : OH : COOH = 1 : 4 : 3]$   
 (MÖHLAU and UHLMANN), A., i, 166.
- Diphenols, *o*-, *m*-, and *p*- (DE CONINCK), A., i, 473.
- Diphenoxyanilic acid and its sodium salt (JACKSON and GRINDLEY), A., i, 155.
- Diphenoxybutyric acid. See Diphenoxyethylacetic acid.
- Diphenoxydiethoxyquinone (JACKSON and GRINDLEY), A., i, 155.
- Diphenoxydiethylacetic acid (*diphenoxyhexoic acid*) and its salts (BENTLEY, HAWORTH, and PERKIN), T., 169; P., 1896, 36; (PERKIN), T., 1502.
- Diphenoxydimethoxyquinone (JACKSON and GRINDLEY), A., i, 156.
- Diphenoxydiethylmalonic acid and its salts (BENTLEY, HAWORTH, and PERKIN), T., 169; P., 1896, 36; (PERKIN), T., 1501.
- action of heat on (BENTLEY, HAWORTH, and PERKIN), T., 169; P., 1896, 36.
- Diphenoxyethylacetic acid (*diphenoxybutyric acid*), action of hydrogen chloride in acetic acid on (BENTLEY, HAWORTH, and PERKIN), T., 170; P., 1896, 36.
- Diphenoxyhexoic acid. See Diphenoxydiethylacetic acid.
- Diphenoxyquinol, *dichloro*- (JACKSON and GRINDLEY), A., i, 19.
- Diphenoxyquinone, *dibromo*- (JACKSON and GRINDLEY), A., i, 156.
- chloro- (JACKSON and GRINDLEY), A., i, 156.
- dichloro*- (JACKSON and GRINDLEY), A., i, 19.
- Diphenyl, magnetic rotatory power, &c., of (PERKIN), T., 1085, 1087, 1089, 1153, 1196, 1230, 1242.
- o*-amino-, formyl, acetyl, propionyl, and benzoyl derivatives of (PICTET and HUBERT), A., i, 52, 53, 483.
- p*-amino-, composition of (HOFMANN LECTURE), T., 689.



- Diphenyl, chloro-, from *p*-chlorodiazobenzene anhydride (BAMBERGER), A., i, 299.
- dichlorodinitrosulphoxide (UNGER and HOFMANN), A., i, 536.
- p*-nitro-, from di-*p*-nitrodiazobenzene sulphide and benzene (BAMBERGER and KRAUS), A., i, 219.
- 2 : 4'-dinitro- (KÜHLING), A., i, 236.
- 4 : 4'-dinitro- (KÜHLING), A., i, 236.
- Diphenyl ethylene diketone (*diphenacyl*) (FRITZ), A., i, 619.
- bromo- (FRITZ), A., i, 152.
- the two isomerides of (KLINGER and LONNES), A., i, 687.
- Diphenylacetamide, discovery of (HOFMANN LECTURE), T., 704.
- Diphenylacetophenone and its bromo-derivative (DELACRE), A., i, 486.
- Diphenylacetylene (*tolane*), action of water on (DESGREZ), A., i, 2.
- dibromide, action of sodium benzenesulphinate on (OTTO), A., i, 242.
- Diphenylacetyl glyceric acid (active), rotatory power of the methylic salt of (FRANKLAND and MACGREGOR), T., 111; P., 1896, 10.
- Diphenylacetylmaleonic acid, ethylic salt (SCHOTT), A., i, 700.
- Diphenylallophanic acid, ethylic salt (HOFMANN LECTURE), T., 715.
- Diphenylamine, discovery of (HOFMANN LECTURE), T., 615.
- absorption of picric acid from aqueous solution by (WALKER and APPLE-YARD), T., 1342; P., 1896, 148.
- Diphenylamine, *o*-amino-. See Phenyl-*o*-phenylenediamine.
- 2 : 4-diamino-, and its diacetyl derivative (NIETZKI and ALMENRÄDER), A., i, 164.
- chlorothio- (UNGER and HOFMANN), A., i, 535, 536.
- dichlorothio- (UNGER and HOFMANN), A., i, 535, 536.
- tetrachlorothio- (UNGER and HOFMANN), A., i, 535.
- oxidation product of (UNGER and HOFMANN), A., i, 535.
- 4 : 2-nitramino-, and its monacetyl derivative (NIETZKI and ALMENRÄDER), A., i, 164.
- 4' : 2-nitramino-, acetyl derivative of (NIETZKI and BAUR), A., i, 165.
- nitroso- (RADENHAUSEN), A., i, 138.
- thio-, and its hydrochloride (UNGER and HOFMANN), A., i, 535, 536.
- Diphenylamine dyes, action of sunlight on (OGLOBIN), A., i, 649.
- Diphenylbenzamide, discovery of (HOFMANN LECTURE), T., 705.
- m*-Diphenylbenzene, synthesis of, and its identity with *isodiphenylbenzene* (CHATTAWAY and EVANS), T., 982; P., 1896, 114.
- Diphenylbenzenyldiamine. See Diphenylbenzamidine.
- $\beta\gamma$ -Diphenylbutyric acid, identity of, with pyroammaric acid (JAPP and LANDER), P., 1896, 110.
- s*-Diphenylcarbamide (*carbanilide*), preparation of (HOFMANN LECTURE), T., 649, 652; (HALLER), A., i, 32; (CAZENEUVE), A., i, 528; (CAZENEUVE and MOREAU), A., i, 544; (HANTZSCH and SCHULTZE), A., i, 673.
- o*-cyano- (PINNOW and SÄMANN), A., i, 366.
- di-m*-nitro- (CURTIUS), A., i, 34; (STRUVE and RADENHAUSEN), A., i, 35.
- di-p*-nitro- (STRUVE and RADENHAUSEN), A., i, 35.
- tetra*nitro- (STRUVE and RADENHAUSEN), A., i, 35.
- Diphenylcarbazidedicarboxylic acid, ethylic salt of (RUPE), A., i, 429.
- Diphenylcarbinol. See Benzhydrol.
- Diphenylcarboxylic acid (*phenylbenzoic acid*), *p*-amino-, and its hydrochloride (KÜHLING), A., i, 236.
- p*-nitro- (? 4' : 4) (KÜHLING), A., i, 236.
- Diphenyldibutylolactone (FITTIG, WOLFF, and LESSER), A., i, 171.
- Diphenyldiethylenediamine, discovery of (HOFMANN LECTURE), T., 684.
- 2 : 4-Diphenyldihydroglyoxaline (FEIST and ARNSTEIN), A., i, 258.
- 3 : 6-Diphenyl-2 : 4-dimethyldihydropyrazine and salts (KOLB), A., i, 577.
- 4 : 5-Diphenyl-1 : 2-dimethylcyclohexane (HARRIES and ESCHENBACH), A., i, 689.
- 3 : 6-Diphenyl-2 : 4-dimethylpyrazine and salts (KOLB), A., i, 577.
- Diphenyldimethyltetrahydro- $\gamma$ -pyrone (VORLÄNDER and HOBOMM), A., i, 546.
- dibromo- (VORLÄNDER and HOBOMM), A., i, 546.
- Diphenyldiphenylenedicarbamide (SNAPE), A., i, 241.
- s*-Diphenyldiphenylene-ethane (KAUFMANN), A., i, 242; (KLINGER and LONNES), A., i, 375.
- ass*-Diphenyldiphenylene-ethane (KLINGER and LONNES), A., i, 691.
- Diphenyldiphenylene-ethylene (KAUFMANN), A., i, 242; (KLINGER and LONNES), A., i, 692.

- Diphenyldiphenylenepinacolin (KLINGER and LONNES), A., i, 691.
- Diphenyldiphenylenepropionic acid (KLINGER and LONNES), A., i, 375.
- Diphenyldiphenylenesuccinic anhydride (KLINGER and LONNES), A., i, 375.
- Diphenyldisulphonedimethyl-*p*-phenylenediamine (HINSBERG and HIMMELSCHN), A., i, 686.
- 2 : 5-Diphenyldisulphone-*p*-phenylene-diamine and its acetyl derivative (HINSBERG and HIMMELSCHN), A., i, 686.
- 1 : 5-Diphenylisodithiobiazolone (BUSCH), A., i, 190.
- Diphenylene dicyanate, action of ammonia and aniline on (SNAPE), A., i, 241.
- Di-*o*-phenylene ketone. See Fluorenone.
- $\psi$ -Diphenylene ketone and its oxime (KEPP), A., i, 239.
- dinitro- (KEPP), A., i, 239.
- Diphenylene oxide, formation of (GRAEBE and ULLMANN), A., i, 619.
- diselenide and its nitric acid derivative (KRAFFT and KASCHAU), A., i, 297.
- diselenoxide (KRAFFT and KASCHAU), A., i, 297.
- bisulphide, preparation of (KRAFFT and LYONS), A., i, 297.
- disulphoxide (KRAFFT and LYONS), A., i, 297.
- Diphenyleneazone and its diacetyl derivative (TAÜBER), A., i, 686.
- Diphenylenebisdihydroquinazoline and its hydrochloride and platinochloride (TROEGER and EGGERT), A., i, 563.
- Diphenylenedicarbamide (SNAPE), A., i, 241.
- Diphenylene-*o*-dihydrazine and its salts (TAÜBER), A., i, 686.
- Diphenylenedisulphone (KRAFFT and LYONS), A., i, 297.
- Diphenyleneglycollic acid, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- Diphenylenemethylamine (KEPP), A., i, 239.
- Diphenylenesulphone sulphide (KRAFFT and LYONS), A., i, 297.
- Diphenylethenyldiamine. See Diphenylethenylamine.
- Diphenylethylene. See Stilbene.
- Diphenylethylenediamine, discovery of (HOFMANN LECTURE), T., 685.
- bitartrates of (FEIST and ARNSTEIN), A., i, 258.
- Diphenylethylenedicarbamide (FEIST and ARNSTEIN), A., i, 259.
- Diphenylethylenedithiocarbamide (FEIST and ARNSTEIN), A., i, 259.
- Diphenylethylenethiocarbamide (FEIST and ARNSTEIN), A., i, 259.
- Diphenylformamidine (*diphenylmeth-enylamidine*) (CLAISEN), A., i, 92; (WALTHER), A., i, 166.
- discovery of (HOFMANN LECTURE), T., 684, 705.
- di-*m*-bromo- (WALTHER), A., i, 166.
- hexabromo- (WALTHER), A., i, 166.
- 2 : 4-dichloro- (WHEELER and BOLTWOOD), A., i, 478.
- di-*o*-nitro- (WALTHER), A., i, 166.
- di-*m*-nitro- (WALTHER), A., i, 166.
- di-*p*-nitro- (WALTHER), A., i, 166.
- Diphenylfumaric acid, production of, from anhydrazetonebenzilcarboxylic acid (JAPP and LANDER), P., 1896, 109.
- production of, from diphenylcyclopentenonylacetic acid (JAPP and MURRAY), P., 1896, 147.
- Diphenylglycollic acid. See Benzilic acid.
- Diphenylguanidine (*melaniline*), preparation of: its salts and halogen derivatives (HOFMANN LECTURE), T., 650.
- action of cyanogen on (HOFMANN LECTURE), T., 651.
- dicyano- (HOFMANN LECTURE), T., 653.
- dinitro- (HOFMANN LECTURE), T., 651, 695.
- as-Diphenylhydrazine amidosulphonate (PAAL and JANICKE), A., i, 235.
- Diphenylhydroxyacetophenone and its acetate (DELACRE), A., i, 486.
- Diphenylhydroxycyclopentanonecarb-oxylic acid (JAPP and LANDER), P., 1896, 109.
- Diphenylic ethylenic ether (BENTLEY, HAWORTH, and PERKIN), T., 165.
- hexamethyleneglycol ether, preparation of (SOLONINA), A., i, 476.
- methylenic ether (BENTLEY, HAWORTH, and PERKIN), T., 166, 167.
- diselenide (KRAFFT and KASCHAU), A., i, 296.
- $\beta$ m-Diphenylimidazole and its salts (MINOVICI), A., i, 704.
- Diphenylindone (HEYL and MEYER), A., i, 146.
- Diphenyliodinium iodide, preparation of (WILLGERODT), A., i, 676.
- periodide (WILLGERODT), A., i, 676.
- $\gamma$ -Diphenylitaconic acid and its mon-ethyl salt (STOBBE), A., i, 234.
- 4 : 5-Diphenyl-2-ketodihydro-1 : 3-az-oxole (SÖDERBAUM), A., i, 483.

- Diphenylmaleic acid, production of, from anhydrazetonebenzylcarboxylic acid (JAPP and LANDER), P., 1896, 109.
- production of, from diphenylcyclopentenonylacetic acid (JAPP and MURRAY), P., 1896, 147.
- Diphenylmethane, refraction equivalent of (ANDERLINI), A., ii, 229.
- magnetic rotatory power, &c., of (PERKIN), T., 1064, 1085, 1086, 1152, 1195, 1230, 1242.
- α*-chloro-*o*-cyano- (GABRIEL and STELZNER), A., i, 507.
- Diphenylmethenylamine. See Diphenylformamidine.
- Diphenylmethenyldiamine. See Diphenylformamidine.
- 4 : 5-Diphenyl-2-methyl-4 : 5-dihydroglyoxaline (FEIST and ARNSTEIN), A., i, 259.
- Diphenylnitromethane, labile form of (KONOWALOFF), A., i, 675.
- 4 : 5-Diphenyloctane-2 : 7-dione and its diphenylhydrazone and dioxime (HARRIES and ESCHENBACH), A., i, 305, 306.
- hexabromo- (HARRIES and ESCHENBACH), A., i, 689.
- 2 : 5-Diphenyloxazole and its hydrochloride and methiodide (FISCHER), A., i, 262.
- nitro- (MINOVICI), A., i, 705.
- 3 : 5-Diphenylisooxazole (GOLD-SCHMIDT), A., i, 189.
- Diphenyloxetone (FITTIG, WOLFF, and LESSER), A., i, 171.
- Diphenyloxetonecarboxylic acid and salts (FITTIG, WOLFF, and LESSER), A., i, 171.
- γ*-Diphenylparaconic acid, *β*-bromo- (STOBBE), A., i, 234.
- Diphenylcyclopentane (JAPP and LANDER), P., 1896, 108.
- Diphenylcyclopentenone (JAPP and LANDER), P., 1896, 108.
- Diphenylcyclopentenonylacetic acid (JAPP and MURRAY), P., 1896, 147.
- 2 : 3-Diphenylphenanthrapyrazine (FEIST and ARNSTEIN), A., i, 259.
- Diphenylphenofluorindine (KEHRMANN and BÜRGIN), A., i, 513.
- Diphenylphenohomazine. See Anhydrodi-*o*-aminobenzophenone.
- 2 : 6-Diphenylpiperidine and its hydrochloride (PAAL), A., i, 389.
- 3 : 6-Diphenylpyrazine-2 : 4-dicarboxylic acid and its ethylic salt (KOLB), A., i, 578.
- 2 : 6-Diphenylpyridine (PAAL), A., i, 389.
- 1 : 2-Diphenyl-6-pyridone (LEBEN), A., i, 575.
- Diphenylselenone (KRAFFT and LYONS), A., i, 304.
- Diphenylsemicarbazide, nitroso- (BUSCH and BECKER), A., i, 581.
- Diphenylsuccinic acid, *α*- and *β*-ethylic salts of (HELL and WEINZWEIG), A., i, 45.
- Diphenylsulphone-*o*-aminophenol and its salts (HINSBERG and HIMMELSCHEIN), A., i, 686.
- Diphenylsulphonediethylethylenediamine (HINSBERG and STRUPFLER), A., i, 47.
- Diphenylsulphonedimethylethylenediamine (SCHNEIDER), A., i, 200.
- Diphenylsulphone-ethylenediamine (HINSBERG and STRUPFLER), A., i, 47 ; (SCHNEIDER), A., i, 200.
- Diphenylsulphone-ethylenediamine-*o*-phenylenediamine (HINSBERG and STRUPFLER), A., i, 47.
- Diphenylsulphonemethylene-*o*-phenylenediamine (HINSBERG and STRUPFLER), A., i, 47.
- Diphenylsulphone-*o*-phenylenediamine (HINSBERG and STRUPFLER), A., i, 47.
- Diphenylsulphone-*m*-phenylenediamine (HINSBERG and STRUPFLER), A., i, 48.
- Diphenylsulphonetrimethylenephenylenediamine (HINSBERG and STRUPFLER), A., i, 48.
- Diphenyltetrahydropyronedicarboxylic acid, ethylic salt (PETRENKO-KRITSCHENKO and STANISCHESKY), A., i, 472.
- Diphenyltetramethyleneglycol (FRITZ), A., i, 152.
- Diphenyltetrazole (WEDEKIND), A., i, 631.
- 1 : 3-Diphenylisotetrazolone and its hydrochloride, picrate, and platinochloride (BUSCH and BECKER), A., i, 581.
- 1 : 5-Diphenylthiobiazoline, 3-hydro-sulphide, and its sodium and potassium salts (BUSCH), A., i, 190.
- 3-methosulphide (BUSCH), A., i, 190.
- bisulphide (BUSCH), A., i, 190.
- s*-Diphenylthiocarbamide, action of iodine on (HOFMANN LECTURE), T., 715.
- o*-cyano- (PINNOW and SÄMANN), A., i, 366.
- o*-dicyano- (PINNOW and SÄMANN), A., i, 366.
- 4 : 5-Diphenyl-2-thiodihydro-1 : 3-azoxole (SÖDERBAUM), A., i, 484.
- Diphenylthiohydantoinacetic acid (ANDREASCH), A., i, 90.
- Diphenylthiophthaluric acid (DUNLAP), A., i, 471.

- Diphenylthiosemicarbazide (WALTHER), A., i, 543; (BUSCH and BECKER), A., i, 581.
- Diphenyl-*o*-tolylguanidine: its nitrate and platinumchloride (MARCKWALD), A., i, 31.
- Diphenyl-*p*-tolylguanidine: its hydrochloride and platinumchloride (MARCKWALD), A., i, 30.
- o*-Diphenylurethane (PICTET and HUBERT), A., i, 53, 483.
- Diphthalidyl-2'-methylquinoline (NENCKI), A., i, 256.
- Diphthalidyl-1 : 3 : 2'-trimethylquinoline (NENCKI), A., i, 256.
- Dipiperonaltriacetophenone (KOSTANECKI and SCHNEIDER), A., i, 614.
- Dipropenyl. See Hexinene.
- Dipropionic acid (*lactylhydracrylic acid*),  $\alpha\beta$ -thio- (LOVÉN), A., i, 412.
- $\alpha\beta'$ -Thiodipropionic acid (LOVÉN), A., i, 412, 413.
- Dipropionyl. See Diethyl diketone.
- Dipropionylurene (BAUM and MEYER), A., i, 228.
- Dipropionylglyceric acid, active, rotatory power of the methylic salt of (FRANKLAND and MACGREGOR), T., 116; P., 1896, 10.
- 4 : 4-Dipropoxybenzophenone and its oxime (GATTERMANN), A., i, 172.
- 4 : 4-Dipropoxythiobenzophenone (GATTERMANN), A., i, 172.
- Dipropyl ketone (BORN), A., i, 199.
- refraction equivalent of (ANDERLINI), A., ii, 229.
- magnetic rotatory power and relative density of (PERKIN), T., 1063, 1172, 1236.
- heat of evaporation of (LUGININ), A., ii, 146.
- Diisopropyl ketone (BORN), A., i, 199; (FRANKE), A., i, 404.
- Dipropylamine, partial oxidation of (DE HAAS), A., i, 122.
- Dipropylaminechloroborine (MICHAELIS and LUXEMBOURG), A., i, 344.
- Dipropylamineoxychlorophosphine (MICHAELIS and LUXEMBOURG), A., i, 343.
- Dipropylaminethiochlorophosphine (MICHAELIS and LUXEMBOURG), A., i, 343.
- Dipropylaminoacetone and its hydrochloride (STOERMER and POGGE), A., i, 408.
- methiodide (STOERMER and POGGE), A., i, 408.
- oxime, phenylhydrazone, and semicarbazide of (STOERMER and POGGE), A., i, 408.
- Dipropylcyanacetamide (ERRERA), A., i, 529.
- Dipropylene- $\psi$ -hydrazodicarbothiamide: its hydrochloride and acetyl and nitroso-derivatives (FREUND and HEILBRUN), A., i, 416.
- Diisopropylglycollic acid. See Hydroxy-octoic acids.
- $\alpha$ -Dipropylhydantoin (ERRERA), A., i, 529.
- Dipropylacetal, chloro- (BROCHET), A., i, 114.
- Dipropylmethane. See Heptane.
- Diisopropylmethane. See Heptane.
- Diisopropylloxalic acid (REFORMATSKY), A., i, 129.
- Dipropylisopropyl alcohol. See Ennylic alcohols.
- Diisopropylsuccinanil (AUWERS and SCHLOSSER), A., i, 640.
- Diisopropylsuccinanic acid (AUWERS and SCHLOSSER), A., i, 640.
- Diisopropylsuccinic acid, and its electrical conductivity (AUWERS and SCHLOSSER), A., i, 639.
- action of bromine on (AUWERS and SCHLOSSER), A., i, 640.
- Diisopropylsuccinic anhydride (AUWERS and SCHLOSSER), A., i, 640.
- Diisopropylsuccinimide (AUWERS and SCHLOSSER), A., i, 640.
- Diisopropylsuccino- $\beta$ -naphthil (AUWERS and SCHLOSSER), A., i, 640.
- Diisopropylsuccino- $\beta$ -naphthilic acid (AUWERS and SCHLOSSER), A., i, 640.
- Diisopropylsuccino-*p*-tolilic acid (AUWERS and SCHLOSSER), A., i, 640.
- Dipyre, limitation of term (SALOMON), A., ii, 434.
- from Lombardy (SALOMON), A., ii, 433.
- Dipyridine dimethyl octoiodide and enneaiodide (PRESCOTT and TROWBRIDGE), A., i, 186.
- trimethylene dibromide (FLINTERMANN and PRESCOTT), A., i, 317.
- d*-Disantonous acid and its methylic and ethylic salts (ANDREOCCI), A., i, 183, 184.
- l*-Disantonous acid (ANDREOCCI), A., i, 184.
- i*-Disantonous acid (ANDREOCCI), A., i, 184.
- Disazo-compound,  $C_{14}H_{12}N_4$ , obtained from the product of the action of chloroform and potash on *m*-aminobenzoic acid (ELLIOTT), T., 1516; P., 1896, 171.
- Discs of cactus, alkaloids in the (HEFFTER), A., i, 268.
- Disease, excretion of ammonia in (RUMPF), A., ii, 618.

- Disinfectants, estimation of phenol in (FRESENIUS and MAKIN), A., ii, 580.
- Dissociation, electrolytic. See Electrolytic dissociation.
- Dissociation of the acetates of weak bases dissolved in benzene (ZOPPELLARI), A., ii, 515.
- of carbon dioxide, effect in limiting the combustion of carbonic oxide of the (DIXON), T., 786; P., 1896, 56.
- of mixed polyhalogen salts in solution (JAKOWKIN), A., ii, 514.
- of potassium tribromide in solution (JAKOWKIN), A., ii, 514.
- of potassium triiodide in solution (JAKOWKIN), A., ii, 514.
- Dissociation-pressure of palladium hydride (KRAKAU), A., ii, 5.
- of hydrated salts. See Heat.
- Disthene. See Kyanite.
- Distillation in a vacuum, apparatus for (FREEB), A., ii, 557.
- in high vacua (KRAFFT and WEILANDT), A., ii, 464.
- aa*-Dithienyl, tetrachloro- (EBERHARD), A., i, 16.
- hexachloro- (EBERHARD), A., i, 16.
- tetrachlorodibromo- (EBERHARD), A., i, 16.
- Dithienylphenylmethane (TÖHL and NAHKE), A., i, 690.
- Dithienyl-*o*-nitrophenylmethane (TÖHL and NAHKE), A., i, 690.
- Dithienyl-*m*-nitrophenylmethane (TÖHL and NAHKE), A., i, 690.
- Dithienyl-*p*-nitrophenylmethane (TÖHL and NAHKE), A., i, 690.
- Dithioacetylacetone. See Acetylacetone.
- Di-*o*-toluidodihydroxybenzoyl-*nn*-dihydropyrazine. See Dihydrohippuroflavindi-*o*-toluidide.
- o*-Ditoluoyltartaric acid, rotatory power of the methylic and ethylic salts of (FRANKLAND and WHARTON), T., 1312, 1589; P., 1896, 148.
- m*-Ditoluoyltartaric acid, rotatory power of the methylic and ethylic salts of (FRANKLAND and WHARTON), T., 1317; P., 1896, 148.
- p*-Ditoluoyltartaric acid, rotatory power of the methylic and ethylic salts of (FRANKLAND and WHARTON), T., 1314; P., 1896, 148.
- Di-*p*-tolyl benzylidenedimethyl diketone (KOSTANECKI and ROSSBACH), A., i, 688.
- furfurylidenedimethyl diketone (KOSTANECKI and PODRAJANSKY), A., i, 689.
- op*-Ditolylacetamidine (MARCKWALD), A., i, 29.
- Di-*o*-tolylcarbamide (CAZENEUVE and MORREAU), A., i, 544.
- Di-*p*-tolylcarbamide (CAZENEUVE and MORREAU), A., i, 544.
- Ditolylene bisulphide (KRAFFT and LYONS), A., i, 297.
- Di-*o*-tolylformamidine (*ditolylmethenylamidine*) (WALTHER), A., i, 166.
- Di-*p*-tolylformamidine and its acetate (WALTHER), A., i, 166.
- op*-Ditolyllic sulphide (BOURGOIS), A., i, 18.
- mp*-Ditolyllic sulphide (BOURGOIS), A., i, 18.
- Diisovaleryl. See Diisobutyl diketone.
- Divaleryltartaric acid, rotatory power of the diamylic salts of (GUYE and GOUDET), A., ii, 458.
- Dixanthylene (GURGENJANZ and KOSTANECKI), A., i, 52.
- Dolomite from Servia (STANOJEVIĆ), A., ii, 254.
- Dolomitic rock from Graz (IPPEN), A., ii, 483.
- rocks, origin of (KLEMENT), A., ii, 116; (KONINCK), A., ii, 481.
- and limestones from Canada (HARRINGTON), A., ii, 116.
- Dolphin, substances present in the liver of the (DRECHSEL), A., ii, 378.
- Drimin (HESSE), A., ii, 62.
- Drimol and its derivatives (HESSE), A., ii, 63.
- Drimys granatensis*, examination of the bark and leaves of (HESSE), A., ii, 62.
- Drimyssic acid (HESSE), A., ii, 63.
- Drying ovens, heating apparatus for (THIELE), A., ii, 91.
- Dulcitol, boiling point under reduced pressure of (KRAFFT and DYES), A., ii, 89.
- iso*-Dulcitol, rotatory power of  $\alpha$ -,  $\beta$ -, and  $\gamma$ -modifications (TANRET), A., i, 334.
- Dumortierite, or andalusite, from Argentina (JANNASCH), A., ii, 568.
- Durene, diamino- (RÜGHEIMER and HANKEL), A., i, 677.
- Durenecarboxylic acid (MEYER), A., i, 433.
- iso*-Durenecarboxylic acid (MEYER), A., i, 433.
- Duroquinol, preparation of (RÜGHEIMER and HANKEL), A., i, 677.
- dipropionate. See Propionic acid, duroquinol salt of.
- diacetate. See Acetic acid, duroquinol salt of.
- Duroquinone, preparation of (RÜGHEIMER and HANKEL), A., i, 677.
- action of alcoholic potash on (RÜGHEIMER and HANKEL), A., i, 687.

- Dye, yellow, of *Afzela cuanzensis* (KRISTELLI), A., ii, 208.
- Dyeing, chemical theory of (WALKER and APPLEYARD), T., 1341; P., 1896, 148.
- Dyes, acid compounds of yellow (PERKIN), T., 1440; P., 1896, 167.
- constitution of natural yellow (PERKIN), T., 1439; P., 1896, 167.
- tests for red vegetable (WEIGERT), A., i, 388.
- Dynamite, estimation of glycerol for (LEWKOWITSCH), A., ii, 452.
- Dyscrasite from Broken Hill, N.S.W. (SMITH), A., ii, 30.

## E.

- Earths, rare, in monazite sands (SCHÜTZENBERGER and BOUDOUARD), A., ii, 475.
- $\alpha$ -Ecgonine (WILLSTÄTTER), A., i, 582.
- preparation from tropinone cyanhydrin by hydrolysis; and its salts (WILLSTÄTTER), A., i, 707.
- benzoyl derivative of (WILLSTÄTTER), A., i, 708.
- methyl salt of, and its salts (WILLSTÄTTER), A., i, 708.
- Edestin (OSBORNE), A., i, 400.
- occurrence of, in barley (OSBORNE), A., i, 455.
- occurrence of, in cotton seeds (OSBORNE and VORHEES), A., ii, 210.
- occurrence of, in hemp, squash, and castor oil bean (OSBORNE and CAMPBELL), A., i, 716.
- relation of bynedestin to (OSBORNE and CAMPBELL), A., i, 714.
- Elaboration, distinction between assimilation and (CROSS, BEVAN, and SMITH), T., 1605; P., 1896, 174.]
- Elaidic acid, behaviour of alkali salts of, with water (KRAFFT and WIGLOW), A., i, 80.
- Electric arc for laboratory experiments at high temperatures (WALKER), A., ii, 462.
- Electrical method of determining transition points (BAUR), A., ii, 146.
- ELECTRICITY.
- Accumulator plates, non-sulphating (WARREN), A., ii, 554.
- Accumulators, testing the suitability of, for special purposes (SCHOOP), A., ii, 451.
- Conductivity, determination of electrolytic (MALTBY), A., ii, 144.
- of solutions, influence of pressure on (TAMMANN), A., ii, 6.

## ELECTRICITY.

- Conductivity of solutions containing two electrolytes having a common ion (MCINTOSH), A., ii, 555.
- of dilute solutions, theory of the (BEKETOFF), A., ii, 348.
- of salts, dilution law of the (SAKURAI), T., 1661; P., 1896, 182.
- of salt solutions, connection between concentration and (VAN'T HOFF), A., ii, 145; (STORCH), A., ii, 288; (KOHLEAUSCH), A., ii, 295.
- of solutions in mixtures of alcohol and water (SCHALL), A., ii, 463.
- of solutions of various salts in acetone (LASZCZYNSKI), A., ii, 555.
- of solutions of salts and acids in formic acid (ZANNINOVICH-TESSARIN), A., ii, 352.
- of salts dissolved in glycerol (CATTANEO), A., ii, 231.
- of salts and acids dissolved in methylic alcohol (CARRARA), A., ii, 511.
- of solutions of amidosulphonic acid and of sodium amidosulphonate (SAKURAI), T., 1656; P., 1896, 181.
- of aqueous solutions of ammonia (KONOWALOFF), A., ii, 351.
- of cesium chlorate (BAUR), A., ii, 144.
- of ethereal solutions of hydrochloric acid (MALTBY), A., ii, 144.
- of potassium chlorate (BAUR), A., ii, 144.
- of aqueous solutions of potassium chloride (MALTBY), A., ii, 144.
- of potassium chloride solutions at 0° (WOOD), A., ii, 236.
- of rubidium chlorate (BAUR), A., ii, 144.
- of solutions of the salts of the polythionic acids (HEBTLEIN), A., ii, 353.
- of aqueous solutions of yttrium sulphate (JONES), A., ii, 462.
- of solutions of optical isomerides (WALDEN), A., ii, 553.
- of aqueous solutions of acetylene (JONES and ALLEN), A., ii, 462.
- of amidotetrazotic acid and its sodium salt (BAUR), A., ii, 144.
- of sodium azotetrazole (BAUR), A., ii, 144.
- of benzenesulphonic acid (LOVÉN), A., ii, 413.

## ELECTRICITY.

- Conductivity of benzenesulphoneneasparagine (LOVÉN), A., ii, 413.
- of benzenesulphoneneglycocine (LOVÉN), A., ii, 413.
- of  $\psi$ -cumenesulphoneneglycocine (LOVÉN), A., ii, 413.
- of  $\beta$ -dibromomethanesulphonepropionic acid (LOVÉN), A., ii, 413.
- of  $\beta$ -dichloromethanesulphonepropionic acid (LOVÉN), A., ii, 413.
- of diphenyleneglycollic acid (LOVÉN), A., ii, 413.
- of formanilide (EWAN), T., 96; P., 1896, 8.
- of selenodiacetic acid (LOVÉN), A., ii, 413.
- of tetrazole (BAUR), A., ii, 144.
- of sodium thioformanilide (EWAN), T., 97; P., 1896, 8.
- of  $\beta$ -thiophenecarboxylic acid (LOVÉN), A., ii, 413.
- of *p*-toluenesulphinic acid (LOVÉN), A., ii, 413.
- of *o*-toluenesulphoneneglycocine (LOVÉN), A., ii, 413.
- of *p*-toluenesulphoneneglycocine (LOVÉN), A., ii, 413.
- of ethereal solutions of trichloroacetic acid (MALTBY), A., ii, 144.
- of 1 : 3 : 4-xylenesulphonenealanine (LOVÉN), A., ii, 413.
- of 1 : 3 : 4-xylenesulphoneneglycocine (LOVÉN), A., ii, 413.
- Convection currents in the electrolysis of water with small E.M.F., cause of (RICHAZ and LONNES), A., ii, 586.
- Currents, measurement of small (HERROUN), A., ii, 7.
- Dielectric constant, dependence on temperature and pressure of the (RATZ), A., ii, 288.
- relationship of the valency of gases to their (LANG), A., ii, 144.
- of mixtures of organic liquids (LINEBARGER), A., ii, 509.
- Discharge phenomena in gases (LEHMANN), A., ii, 143.
- in rarefied metallic vapours (WIEDEMANN and SCHMIDT), A., ii, 348.
- Electrocapillary phenomena between mercury and dilute sulphuric acid (GOUY), A., ii, 143.
- Electrodes, absorption of acids and alkalis from solution by platinised (KELLNER), A., ii, 232.
- of lead, silver, thallium, and manganese peroxides (TOWER), A., ii, 142.

## ELECTRICITY.

- Electromotive force and partition equilibrium (BUCHERER), A., ii, 586.
- of cells containing solutions in equilibrium of partition (LUTHER), A., ii, 461.
- of silver salts, temperature coefficient of (LOVÉN), A., ii, 635.
- produced by the action of light on silver sulphide (RIGOLLOT), A., ii, 3.
- Energy necessary for the electrolysis of cadmium sulphate (JAHN), A., ii, 230, 231.
- for the electrolysis of copper nitrate (JAHN), A., ii, 230, 231.
- for the electrolysis of copper sulphate (JAHN), A., ii, 230, 231.
- for the electrolysis of zinc sulphate (JAHN), A., ii, 230, 231.
- Galvanic cell: carbon | chromic acid, zinc | caustic soda (MORISOT), A., ii, 4.
- Clark's (SKINNER), A., ii, 3.
- calculation of the E.M.F. of (MEYER), A., ii, 143.
- containing a peroxide electrode (TOWER), A., ii, 142.
- tin | chromic chloride (SKINNER), A., ii, 3.
- Parasite electrodes (DELVALEZ), A., ii, 407.
- Peltier effect between metals and electrolytes (JAHN), A., ii, 230, 231.
- Polarisation, galvanic, thermodynamics of (LE BLANC), A., ii, 4.
- in the electrolysis of cadmium sulphate (JAHN), A., ii, 230, 231.
- in the electrolysis of copper nitrate (JAHN), A., ii, 230, 231.
- in the electrolysis of copper sulphate (JAHN), A., ii, 230, 231.
- in the electrolysis of lead nitrate (JAHN), A., ii, 230, 231.
- in the electrolysis of silver nitrate (JAHN), A., ii, 230, 231.
- in the electrolysis of zinc sulphate (JAHN), A., ii, 230, 231.
- of a galvanic cell, measurement of the (STREINTZ), A., ii, 460.
- Potential difference between liquids and gases (KENRICK), A., ii, 460.
- between metals and electrolytes (MEYER), A., ii, 143.
- between dilute solutions (TOWER), A., ii, 586.
- between different electrodes and solutions of polythionates (HERTLEIN), A., ii, 353.
- between nitric acid and platinum (IHLE), A., ii, 460.

**ELECTRICITY :**

- Pyroelectric properties of *cis*- $\pi$ -camphanic acid (POPE), T., 973; P., 1896, 116.
- Resistance of electrolytes. See Conductivity.
- of a galvanic cell, measurement of the (STREINTZ), A., ii, 460.
- of bismuth at low temperatures (DEWAR and FLEMING), A., ii, 5.
- of palladium hydride (KRAKAU), A., ii, 5.
- Spark length in various gases (COLLIE and RAMSAY), A., ii, 634.
- Specific inductive capacity. See Dielectric constant.
- Thermoelectromotive force of metals and alloys (DEWAR and FLEMING), A., ii, 4.
- Thermo-elements of amalgams and electrolytes (HAGENBACH), A., ii, 513.
- Electro-dissolution, value of, in purifying metals (WARREN), A., ii, 249.
- Electrolysis of fused zinc chloride (LORENZ), A., ii, 586.
- Helmholtz's discoveries in (FITZGERALD), T., 900; P., 1896, 25.
- of solutions of salts in acetone (ŁASZCZYŃSKI), A., ii, 556.
- of hydrochloric acid (OETTEL), A., ii, 555.
- apparatus for the (HIGLEY and HOWARD), A., ii, 557; (PICKEL), A., ii, 557.
- of silver nitrate (ŠULC), A., ii, 521; (MULDER and HERINGA), A., ii, 561.
- of sodium sulphides (DURKEE), A., ii, 559.
- of sulphuric acid (ELBS and SCHÖNHERR), A., ii, 519.
- of water (SOKOLOFF), A., ii, 510.
- for quantitative analysis (HEIDENREICH), A., ii, 545.
- apparatus for (GROGER), A., ii, 272.
- Electrolytic apparatus (TOMMASI), A., ii, 511.
- Electrolytic-dissociation, theory of (FITZGERALD), T., 906; P., 1896, 25.
- influence of, on molecular refraction (LE BLANC and ROHLAND), A., ii, 345.
- measured by means of the electromotive force of galvanic cells (TOWER), A., ii, 142.
- determination of, by colorimetric observations (DONNAN), A., ii, 405.
- in alcoholic solution (JONES and ALLEN), A., ii, 467.
- of acids (KORTRIGHT), A., ii, 463.

- Electrolytic-dissociation of salts and acids dissolved in formic acid (ZANINOVICH-TESSARIN), A., ii, 352.
- of salts dissolved in methylic and ethylic alcohols (WOELFER), A., ii, 237.
- of cobalt chloride at different temperatures (SALVADORI), A., ii, 512.
- of copper chloride at different temperatures (SALVADORI), A., ii, 512.
- of manganese chloride at different temperatures (SALVADORI), A., ii, 512.
- of mercuric chloride in alcoholic solution (SALVADORI), A., ii, 512.
- of nickel chloride at different temperatures (SALVADORI), A., ii, 512.
- of potassium chloride solutions at 0° (WOOD), A., ii, 236.
- of water when pure and mixed with alcohol (LÖWENHERZ), A., ii, 587.
- Electrolytic formation of hypochlorites and chlorates (OETTEL), A., ii, 517.
- Electrolytic preparation of beryllium (BORCHERS), A., ii, 520.
- of lithium (BORCHERS), A., ii, 520.
- Element, new, of the samarium group (DEMARÇAY), A., ii, 475.
- Elements, boiling point and genesis of the (BLANSHARD), A., ii, 233.
- specific volume and genesis of the (BLANSHARD), A., ii, 152.
- eutropic series of (ORTLOFF), A., ii, 355.
- supposed group of inactive (THOMSEN), A., ii, 16.
- Eliasite, spectrum of gas from (LOCKYER), A., ii, 597.
- Ellagic acid, occurrence of, in *Querbracho colorado* (PERKIN and GUNNELL), T., 1307; P., 1896, 158.
- Emerald? artificial? (REBUFFAT), A., ii, 313.
- Emerald. See Beryl.
- Emery from Naxos (TSCHERMAK), A., ii, 253.
- Emetine and its salts, preparation of (PAUL and COWNLEY), A., i, 192.
- action of heat on (PAUL and COWNLEY), A., i, 395.
- estimation of, in ipecacuanha (CRIPPS), A., ii, 284.
- Emodin, detection of (FORMÁNEK), A., ii, 401.
- Emulsion, solubility of, in alcohol (DASTRE), A., i, 398.
- action of, on salicin (TAMMANN), A., ii, 244.
- from fungi, hydrolysing property of (BOURQUELOT and HÉRISSEY), A., i, 195.



- Enamel for iron, composition of (EMMERLING), A., ii, 523.
- Enamel of teeth, composition of (TOMES), A., ii, 315.
- Eninvertase (BAU), A., i, 453.
- ENNINYLIC ALCOHOL :  
Diallylisopropyl alcohol and the action of hydrogen bromide on it (OBERREIT), A., i, 666.
- Ennoic acid (*nonoic acid*, *pelargonic acid*) (SPIECKERMANN), A., i, 410.
- ENNYLIC ALCOHOL (*nonylic alcohol*) :  
Dipropylisopropyl alcohol, *dibromo-*, and action of alcohol and zinc dust on (OBERREIT), A., i, 666.
- Ennylamine (*nonylamine*) (BEHREND), A., i, 410.
- Enzyme from yeast, a new (BAU), A., i, 453.
- Enzymes, velocity of changes produced by (TAMMANN), A., ii, 243.  
hydrolysis by certain (FISCHER and LINDNER), A., i, 195.  
digestion of cellulose by (GRÜSS), A., ii, 669.  
influence of, in the formation of indigo (VAN LOOKEREN and VAN DER VEEN), A., ii, 207.
- Eosin. See Fluorescein, tetrabromo-.
- Epidote, composition and optical properties of (FORBES), A., ii, 371.  
from Colorado (EAKINS), A., ii, 39.  
from the Harz (LÜDECKE), A., ii, 312.  
from Huntington, Mass. (FORBES), A., ii, 371.  
from the Tyrol (WEINSCHENK), A., ii, 569.
- Epidote and zoisite group (WEINSCHENK), A., ii, 568.
- Epiguanine (KRUGER), A., i, 62.
- Equilibrium between alkylammonium cyanates and the corresponding carbamides (WALKER and APPLE-YARD), T., 193; P., 1896, 12.  
between diphenylamine, picric acid, and water (WALKER and APPLE-YARD), T., 1342; P., 1896, 148.  
between picric acid dissolved in water and absorbed by silk (WALKER and APPLE-YARD), T., 1339; P., 1896, 147.  
chemical, between hexachlor- $\alpha$ -keto- $\beta$ - and  $\gamma$ -pentene (KÜSTER), A., ii, 158.  
of solutions in liquid and solid substances (VAN BEMMELEN), A., ii, 155.  
in ammoniacal solutions of magnesium salts (LOVEN), A., ii, 413.  
in the system  $\text{HgO}-\text{SO}_3-\text{H}_2\text{O}$  (HOITSEMA), A., ii, 15.
- Equilibrium in the systems formed from the salt  $\text{NaNO}_2$  and  $\text{NH}_4\text{Cl}$  (MEYER-HOFFER), A., ii, 414.
- Equilibrium of partition and electromotive force (BUCHERER), A., ii, 586.  
electrical behaviour of solutions in (LUTHER), A., ii, 461.  
of bromine between salt solutions and carbon tetrachloride, &c. (JAKOWKIN), A., ii, 514.  
of iodine between two solvents (JAKOWKIN), A., ii, 295.  
of iodine between salt solutions and carbon tetrachloride, &c. (JAKOWKIN), A., ii, 514.
- Erbium oxide, colloidal solution of (DELAFONTAINE), A., ii, 562.
- Erythritol-diacetone (SPEIER), A., i, 77.
- Erythrodextrin. See under Dextrin.
- Eserine (*physostigmerin*), detection of (FORMANEK), A., ii, 401.
- Essential oils. See Oils.
- Essonite from Canaan, Conn. (HOBBS), A., ii, 34.
- Ethane and nitrous oxide, critical phenomena of mixtures of (KUENEN), A., ii, 10.  
nitro-, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.  
behaviour of, towards phenylhydrazine (WALTHER), A., i, 542.  
sodium salt, action of benzoic chloride on (NEF and JONES), A., i, 460.  
action of ethylic chloroformate on (NEF and JONES), A., i, 460.
- Ethanetetracarboxylic acid, ethylic salt (PERKIN and THORPE), T., 1485; (BISCHOFF), A., i, 130, 468, 528, 601.  
ethylic salts, action of ethylic chloromalonate and bromomalonate on (BISCHOFF), A., i, 601.  
methylic salt (BISCHOFF), A., i, 468, 527.  
action of bromine on and action of sodium methoxide and iodine on (BISCHOFF), A., i, 468.
- Ethanetricarboxylic acid, ethylic salt, velocity of hydrolysis (HJELT), A., i, 600.  
sodio-, ethylic salt, action of ethylic chloromalonate and bromomalonate on (BISCHOFF), A., i, 601.  
action of methylic bromomalonate on (BISCHOFF), A., i, 600.

Ethenylamidoxime, cyano-, and its acetyl and benzoyl derivatives (SCHMIDTMANN), A., i, 458.  
 Ethenyl-*o*-aminothiophenol amyl-iodide, colouring matter obtained from (HOFMANN LECTURE), T., 714.  
 Ethenyl derivative obtained from acetyl derivative of 2:4'-diaminodiphenylamine (NIETZKI and BAUR), A., i, 165.  
 Ethereal salts in the oil from capsicum seeds (VON BITTÓ), A., ii, 209.  
   effect of mineral acids in the preparation of (FISCHER and SPIER), A., i, 201, 202.  
 Etherification (MEYER), A., i, 170, 228, 547; (SHUKOFF), A., i, 229; (GOLDSCHMIDT), A., i, 229; (WEGSCHEIDER), A., i, 94, 229.  
   indirect (TAFEL), A., ii, 470.  
   in presence of hydrochloric acid (PETERSEN), A., ii, 638.  
   efficiency of hydrogen chloride in promoting, the probable explanation of (COLSON), A., i, 282.  
   facility of (BRÜHL), A., i, 178.  
 Ethers. See:—  
   Amylic phenylic ether.  
   Anethoil.  
   Anisoil.  
   Apiole and *iso*-Apiole.  
   Apione.  
   Azophenylic ether.  
   Benzhydrol ether.  
   Benzimidoethyl ether.  
   Benzimidomethyl ether.  
   Benzoylmethylresorcinol methyl ether.  
   Benzyl methyl oxide.  
   Benzylaminophenetoil.  
   Benzylideneanhydroglycogallol diethyl ether.  
   Benzylidene diethyl ether.  
    $\beta$ -Benzylxypropylene.  
   Bisethylbenzoylcarbinol.  
   Carvacrylic amylic ether.  
   Cholesterylic ether.  
    $\psi$ -Cumenol bromide, dibromo-, ethyl ether of its ammonia compound.  
   Diamyloxyquinol.  
   Diamyloxyquinone.  
   Diamyloxyquinonediamylhemiacetal.  
   Dibenzylxyquinone.  
   Diduroquinone, methylic, ethylic, and propylic ethers.  
   Diethoxyacetophenone.  
   2:4-Diethoxybenzylideneacetophenone.  
   Diethoxybenzylidenetriacetophenone.  
   Diethoxyphenylmalonamide.  
   Diethoxyphenyloxamide.

Ethers. See:—  
   Diethoxyquinol.  
   Diethoxyquinone.  
   Diethoxy-1:3:4-xyleneol.  
   Dihydroxytetramethylstilbene, ethyl ether.  

*p*-Dimethoxybenzene (dimethylquinol).  
 2:4-Dimethoxybenzaldehyde.  
 Dimethoxyphenylmalonamide.  
 Dimethoxyphenyloxamide.  
 Dimethoxyquinol.  
 Dimethoxyquinone.  
 Dimethoxy-1:3:4-xyleneol.  
 Dimethylapionol.  
 Dimethylapionolcarboxylic acid.  
 Dimethylhomopyrocatechol.  
 Dimethylquinol (*p*-dimethoxybenzene).  
 Dimethylresorcinol.  
 Diphenoxyquinone.  
 Diphenylic ethylenic ether.  
 Diphenylic hexamethyleneglycol ether.  
 Diphenylic metylenic ether.  
 Ethoxyanethoil.  
 Ethoxybenzylideneacetone.  
 Ethoxybenzylideneacetophenone (phenyl ethoxystyryl ketone).  
 Ethoxybromanethoil.  
 Ethoxynaphthalenes. See  $\alpha$ - and  $\beta$ -Naphthylic ethylic oxides.  
*s*- $\gamma$ -Ethoxybutylphenylthiocarbamide.  
 Ethoxy- $\psi$ -cumenol.  
 $\mu$ -Ethoxyphenylthiazoline.  
 2-Ethoxy-5-phenyl-3:4-dithiobiazolone.  
 $\beta$ -Ethoxypropylene.  
 1':3'-Ethoxypropylisoquinoline.  
 Ethoxyquinolines.  
 Ethoxystyrene.  
 $\omega$ -Ethoxy-1:3:4-xyleneol.  
 Ethylisoeugenol.  
 Ethylic ether.  
 Gentisin.  
 Guaiacol.  
 Hydrazophenylic ether.  
 Hydroxy- $\psi$ -cumenol ether.  
 Hydroxydimethoxycoumarincarboxylic acid.  
 Hydroxyethoxymethylquinoline.  
*p*-Hydroxyphenylic ether.  
 Methoxybromethoxypropylbenzene.  
 $\beta$ -Methoxynaphthalene.  
 Methoxyphenylcrotonic acid.  
 $\omega$ -Methoxy-1:3:4-xyleneol.  
 Methyleneedioxybenzene.  
 Methylic  $\alpha\beta$ -dibromallylic ether.  
 Methylic methylacetylenic ether.  
 $\beta$ -Naphthylic benzoylmethylic ether.  
 $\alpha$ - and  $\beta$ -Naphthylic ethylic oxides.

**Ethers. See:—**

$\beta$ -Naphthyllic methylic oxide.  
 Phenetyldihydrophenotriazine.  
 Phenetyltetrahydroquinazolines.  
 $\alpha$ -Phenoxybutyric acid.  
 Phenoxyethyllic ethylic ether.  
 Phenylbenzoin ethylic ether.  
 Phenylic allylic ether.  
 Phenylic *iso*-butylic ether.  
 Phenylic  $\beta$ -chlorethyllic ether.  
 Phenylic ether.  
 Phenylic  $\beta$ -ethoxyethyllic ether.  
 Phenylic ethylic ether.  
 Phenylic methylic ether.  
 Phenylic octylic ether.  
 Phenylic propylic ether.  
 Phenylic *iso*-propylic ether.  
 Quercetin methyl ethers.  
 Resacetophenone, ethyl ethers.  
 Resorcinol diethyl ether.  
 Tetramethylapionol.  
 Tetraphenoxiquinol.  
 Tetraphenoxiquinone.  
 Tetrethoxytetraphenylethane.  
 Tetrethoxytetraphenylethylene.  
 Thymylic amylic ether.  
*o*-Tolylformimidoethyllic ether.  
*p*-Tolyllic allylic ether.  
*o*-, *m*-, *p*-, Tolylic amylic ethers.  
*o*-, *m*-, *p*-, Tolylic methylic ethers.  
 Trimethoxycoumarin.  
 Trimethoxycoumarincarboxylic acid.  
 Trimethylapionolic acid.  
 Trimethylpyrogallol.  
 Veratrole.  
 Veratrylamine.  
 Etherthiorufic acid (EMMEBLING), A., i, 127.  
 Ethoxyacetic acid, copper and sodium salts, electrolysis of (WALKER), T., 1278, 1279.  
 $\beta$ -Ethoxyanethoil (HELL and HOLLENBERG), A., i, 354.  
 Ethoxybenzenyl oxime, ethylenic ether (WERNER and GEMSEUS), A., i, 432.  
 2-Ethoxybenzylideneacetone, 5-bromo- (KOSTANECKI and SCHNEIDER), A., i, 614.  
 Ethoxybenzylideneacetophenone. See Phenyl ethoxystyryl ketone.  
 4': 1'-Ethoxybenzylphthalazine (BROMBERG), A., i, 579.  
 $\beta$ -Ethoxybromanethoil (HELL and HOLLENBERG), A., i, 354.  
 $\beta$ -Ethoxybutylamine: its picrate and other salts (BOOKMAN), A., i, 199.  
 phenylthiocarbamide of (BOOKMAN), A., i, 199.  
 $\gamma$ -Ethoxybutylamine (BOOKMAN), A., i, 200.  
 preparation of (LUCHMANN), A., i, 545.

$\beta$ -Ethoxycinnamic acid and its ethylic salt (CLAISEN), A., i, 464.  
 Ethoxycrotonic acid and its ethylic salt (CLAISEN), A., i, 463.  
 Ethoxy- $\psi$ -cumenol, dibromo-, and its benzoate (AUWERS and MARWEDEL), A., i, 150.  
 Ethoxydimethyldiphenylamine, amido-. See Ethoxytolyltolylenediamines and Tolylethoxytolylenediamines.  
 Ethoxyfumaric acid, ethylic salt (MICHAEL and BUCHER), A., i, 85.  
 from ethylic acetylenedicarboxylate (MICHAEL and BUCHER), A., i, 599.  
 conversion into oxalacetic acid (MICHAEL and BUCHER), A., i, 599.  
 Ethoxyglutaconic acid and its ethylic salt (CLAISEN), A., i, 464.  
 Ethoxymaleic acid, action of hydrochloric acid on (MICHAEL and BUCHER), A., i, 599.  
 ethylic salt of (MICHAEL and BUCHER), A., i, 85.  
 from ethylic acetylenedicarboxylate (MICHAEL and BUCHER), A., i, 599.  
 Ethoxymaleic anhydride (MICHAEL and BUCHER), A., i, 599.  
 from ethoxyfumaric acid (MICHAEL and BUCHER), A., i, 599.  
 Ethoxymethyldiphenylamines, amido-. See Ethoxyphenyltolylenediamines, Ethoxytolylphenylenediamines, Phenylethoxytolylenediamines, and Tolylethoxyphenylenediamines.  
 Ethoxymethyleneacetoacetic acid, ethylic salt (CLAISEN), A., i, 463.  
 Ethoxymethyleneaniline (CLAISEN), A., i, 92.  
 $\mu$ -Ethoxypentiazoline,  $\gamma$ -bromo- (DIXON), T., 31; P., 1895, 217.  
 Ethoxyphenyl-5-chloro-*m*-tolylamine: its nitrosamine (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.  
 2-Ethoxy-5-phenyl-3: 4-dithiobiazolone (BUSCH), A., i, 705.  
*p*-Ethoxyphenyl-*m*-ethoxyphenylenediamine and its hydrochloride and thiocarbamide (JACOBSEN and MEYER), A., i, 27.  
*m*-Ethoxyphenylhydrazine, 2: 4: 6-*tri*-nitro-, acetylbenzylidene, *o*-hydroxybenzylidene, *p*-hydroxybenzylidene, and cinnamylidene derivatives (PURGOTTI), A., i, 363.  
*p*-Ethoxyphenylmalonamic acid and its ethylic salt (CASTELLANETA), A., i, 368.  
*p*-Ethoxyphenyloxamic acid and its

- ethylic salt (CASTELLANETA), A., i, 368.
- p*-Ethoxyphenyloxamide (WENGHÖFFER), A., i, 360.
- $\beta$ -Ethoxy- $\beta$ -phenylpropionic acid,  $\alpha$ -iodo- (ERLENMEYER), A., i, 302.
- p*-Ethoxyphenylsuccinamic acid and its sodium salt (PRUTTI), A., i, 224.
- p*-Ethoxyphenylsuccinimide (PRUTTI), A., i, 223.
- compound of, with potassium iodide and iodine (PRUTTI), A., i, 364.
- p*-Ethoxyphenyl-*o*-tolylamine: its nitrosamine (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.
- (2)-*p*-Ethoxyphenyl-1 : 2 : 5-tolylene-diamine: its hydrochloride and tylace derivatives (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.
- (5)-*p*-Ethoxyphenyl-1 : 2 : 5-tolylene-diamine: its hydrochloride, diazoiodide, acetyl, benzylidene, and hydroxybenzylidene derivatives (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 24.
- p*-Ethoxyphenyl-1 : 3 : 4-tolylene-diamine: its azimide and stilbazonium base (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.
- $\beta$ -Ethoxypropylene (CLAISEN), A., i, 464.
- 1' : 3'-Ethoxypropylisoquinoline and its salts (ALBAHARY), A., i, 699.
- 1-Ethoxyquinoline, methiodide and methochloride of (CLAUS and NOHL), A., i, 698.
- 3-Ethoxyquinoline and its nitro- and amino- derivatives (GRIMAU), A., i, 255.
- Ethoxy- $\beta$ -resorcylic acid and its salts (GREGOR), A., i, 171.
- ethylic salt of (GREGOR), A., i, 616.
- Ethoxystyrene (CLAISEN), A., i, 464.
- Ethoxysuccinic acid, rotatory power of the ethylic salt of (WALDEN), A., ii, 136.
- 4-Ethoxy-*m*-tolyl-*p*-phenylenediamine and its acetyl derivative (JACOBSEN, FERTSCH, MARSDEN, and SCHKOLNIK), A., i, 24.
- 4-Ethoxy-*o*-tolyl-*p*-phenylenediamine: its acetyl derivatives and thiocarbamide (JACOBSEN, FERTSCH, MARSDEN, and SCHKOLNIK), A., i, 24.
- (2)-*p*-Ethoxy-*o*-tolyl-1 : 2 : 5-tolylene-diamine: its sulphate and acetyl derivatives (JACOBSEN, KEBER, HENRICH, and SCHWARZ), A., i, 26.
- (5)-*p*-Ethoxy-*o*-tolyl-1 : 2 : 5-tolylene-diamine: its acetyl derivative and thiocarbamide (JACOBSEN, KEBER, HENRICH, and SCHWARZ), A., i, 27.
- o*-Ethoxy-*m*-tolyl-1 : 2 : 5-tolylene-diamine (JACOBSEN, KEBER, HENRICH, and SCHWARZ), A., i, 26.
- p*-Ethoxy-*m*-tolyl-1 : 2 : 5-tolylene-diamine: its monacetyl and diformyl derivatives and thiocarbamide (JACOBSEN, KEBER, HENRICH, and SCHWARZ), A., i, 26.
- $\omega$ -Ethoxy-1 : 3 : 4-xylenol, tribrom- (AUWERS and CAMPENHAUSEN), A., i, 424.
- Ethyl  $\alpha$ -hydroxypropyl ketone, density of (ANDERLINI), A., i, 203.
- Ethyl isopropyl ketone (GRÜCKSMANN), A., i, 333.
- Ethylacetoacetic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- Ethylacetonedicarboxylic acid, hydr-azone of (PETRENKO - KRITSCHENKO and EPHRUSSI), A., i, 135.
- ethylic salt, hydrazone of (PETRENKO-KRITSCHENKO and EPHRUSSI), A., i, 135.
- Ethylallylactic acid. See under Hexe-noic acid.
- Ethylallylmalonic acid, ethylic salt, rate of hydrolysis of and preparation of (HJELT), A., i, 598.
- Ethylamine, discovery of (HOFMANN LECTURE), T., 656.
- preparation of, from aldehyde-ammonia and nascent hydrogen (JEAN), A., i, 77, 78.
- action of nitrous acid on (HOFMANN LECTURE), T., 698.
- action of sulphur dichloride on (LENGFELD and STIEGLITZ), A., i, 79.
- 5-Ethylamino-1-ethyltetrazole (THIELE and INGLE), A., i, 109.
- $\alpha$ -Ethylaminopropionic acid, action of carbamide on (DUVILLIER), A., i, 89.
- Ethylanemonin. See Anemonin.
- Ethylanhydrodibenzilacetoacetic acid and its potassium, silver, and barium salts (JAPP and LANDER), T., 739; P., 1895, 146.
- ethylic salt of (JAPP and LANDER), T., 738; P., 1895, 146.
- reduction of (JAPP and LANDER), T., 743; P., 1895, 146.
- Ethylaniline (HOFMANN LECTURE), T., 598.
- discovery of (HOFMANN LECTURE), T., 660.
- magnetic rotatory power, &c., of (PERKIN), T., 1099, 1208, 1244.
- o*-nitro- (MELDOLA and STREATFIELD), P., 1896, 51.
- Ethylbenzamide (BLACHER), A., i, 33.
- Ethylbenzoylpropionic acid (MUHR), A., i, 232.

- Ethylbenzene, magnetic rotatory power, &c., of (PERKIN), T., 1079, 1082, 1083, 1094, 1096, 1192, 1241.
- Ethylbenzhydroxamic acid, ethylenic ether (WERNER and GEMSEUS), A., i, 432.
- Ethyl-*o*-benzoisulphinide, brom- (ECKENROTH and KOERPPEN), A., i, 439.
- Ethylcarbamide, nitro-, and its salts (THIELE and LACHMANN), A., i, 207.
- $\alpha$ -Ethylcarboxyglutaric acid, ethylic salt (AUWERS and TITHERLEY), A., i, 642.
- Ethylchlorimidocarbonic acid. See Imidocarbonic acid, ethylchloro-.
- Ethylcresols. See Methyl-ethylphenols.
- Ethylcusparine (BECKMANN), A., i, 66.
- Ethylcymene. See 1-Methyl-ethyl-4-isopropylbenzene.
- Ethyl-desmotroposantonin (ANDREOCCI), A., i, 182.
- Ethylisodermotroposantonin (ANDREOCCI), A., i, 182.
- Ethyl-desmotroposantonous acid and its ethylic salt (ANDREOCCI), A., i, 185.
- Ethylene, temperature of the flame of (LEWES), A., ii, 141.
- decomposition of, by heat (LEWES), A., i, 113.
- oxidation of, by palladinised copper oxide (CAMPBELL), A., ii, 171.
- explosive mixtures of air and (CLOWES), P., 1895, 201.
- estimation of, in gaseous mixtures (FRITSCH), A., ii, 678.
- separation of, from butylene (FRITSCH), A., ii, 678.
- Ethylene, tribrom- (HAWORTH and PERKIN), T., 177.
- tetraiod- (MEYER and PEMSEL), A., i, 517.
- Ethylenediamine (HOFMANN LECTURE), T., 684.
- mercuriochloride of (SCHNEIDER), A., i, 201.
- alkyl derivatives of (SCHNEIDER), A., i, 200.
- Ethylenedi-*o*-benzoisulphinide, preparation of (ECKENROTH and KOERPPEN), A., i, 439.
- Ethylenedihydroxylamine, hydrochloride (WERNER and GEMSEUS), A., i, 432.
- Ethylenediurethane (CURTIUS), A., i, 35.
- Ethylenetetracarboxylic acid, dipotassium dihydrogen salt (BISCHOFF), A., i, 469.
- ethylic salt (BISCHOFF), A., i, 468.
- methylic salt (BISCHOFF), A., i, 527.
- Ethylenethiouramil (FISCHER), A., i, 142.
- Ethylenic *o*-benzazoisimide, *m*-nitro- (KRATZ), A., i, 365.
- Ethylenic dibromide, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- action of potassium carbonate on (HAWORTH and PERKIN), T., 175; P., 1896, 37.
- action of sodium phenoxide on (BENTLEY, HAWORTH, and PERKIN), T., 165.
- dichloride, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1173, 1237.
- melting point of (v. SCHNEIDER), A., ii, 290.
- heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- chlorobromide, melting point of (v. SCHNEIDER), A., ii, 290.
- action of sodium phenoxide on (BENTLEY, HAWORTH, and PERKIN), T., 165.
- chloriodide, melting point of (v. SCHNEIDER), A., ii, 290.
- Ethylethanetricarboxylic acid. See Pentanetricarboxylic acid.
- Ethylisofornanilide, preparation of (WHEELER and BOLTWOOD), A., i, 478.
- Ethylfumaric acid, ethylic salt (MICHAEL), A., i, 597.
- Ethylglycollic acid (CURTIUS), A., i, 338.
- $\alpha$ -Ethylglutaric acid and its anhydride (AUWERS and TITHERLEY), A., i, 642.
- $\alpha$ -Ethylglutaranil and anilic acid (AUWERS and TITHERLEY), A., i, 642.
- $\alpha$ -Ethylglutaro- $\beta$ -naphthyl and  $\beta$ -naphthilic acids (AUWERS and TITHERLEY), A., i, 643.
- $\alpha$ -Ethylglutaro-*p*-tolil and *p*-tolilic acids (AUWERS and TITHERLEY), A., i, 642.
- Ethylhydrazine (THIELE and MEYER), A., i, 407.
- Ethylic alcohol, synthesis of (CARO), A., i, 331.
- production of, from cellulose and wood (SIMONSEN), A., i, 331.
- action of light on (RICHARDSON and FORTEY), T., 1351; P., 1896, 164.
- heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237; (MARSHALL and RAMSAY), A., ii, 349.
- boiling points of solutions of salts in (WOELFER), A., ii, 237.

- Ethyl alcohol, freezing points of dilute solutions of (JONES), A., ii, 155; (ABEGG), A., ii, 588.  
critical data of (BATELLI), A., ii, 150.  
vapour, connection between pressure, temperature, and volume of (BATELLI), A., ii, 150.  
vapour pressures of (BATELLI), A., ii, 150.  
action of, on the embryonic heart (PICKERING), A., ii, 46.  
amount of, in the blood during alcoholic poisoning (GRÉHANT), A., ii, 664.  
solubility and activity of ferments in (DASTRE), A., i, 398.  
action of hydrogen chloride on (CAIN), P., 1896, 12.  
sodium derivative, molecular weight of (BECKMANN and SCHLIEBS), A., i, 124.  
estimation of, in wine by an optical method (RIEGLER), A., ii, 224.  
estimation of fusel oil in (GLASENAPF), A., ii, 277.  
See also Beer; Spirits; Wine.
- Ethyl bromide, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- Ethyl ether, action of light on (RICHARDSON and FORTY), T., 1352; P., 1896, 165.  
heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.  
phenomena observed at the critical temperature of (ZAMBIASI), A., ii, 234.  
containing dissolved substances, diminished solubility in water of (TOLLÓCZKO), A., ii, 637.  
action of, on nerve (WALLER), A., ii, 52.
- Ethyl ether, dichlor-, action of amidothiazole on (HANTZSCH and WILD), A., i, 285.
- Ethyl iodide, preparation of (ORLOFF), A., i, 635.  
magnetic rotatory power and relative density of (PERKIN), T., 1063, 1173, 1237.  
heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.  
velocity of the reaction of, with silver nitrate in alcoholic solution (CHIMINELLO), A., ii, 354.
- Ethyl nitrosoferrocyanide (HOFMANN), A., i, 269.
- Ethylidene-*o*-aminobenzoic acid (NIEMENTOWSKI and ORZECOWSKI), A., i, 187.
- Ethylidene-*o*-aminobenzoic acid, trichloro- (NIEMENTOWSKI and ORZECOWSKI), A., i, 187.
- Ethylidenebisacetonedicarboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 212.
- Ethylidenephénylhydrazine. See Acetaldehydephénylhydrazone.
- Ethylidenecyclopropane (GUSTAVSON), A., i, 669.  
 $\beta$ -iodo- (exo-) (GUSTAVSON), A., i, 669.
- Ethylidenepropionic acid, sodium salt, action of sodium hydroxide on (SPEYER), A., i, 128.
- Ethylidenetrimethylene. See Ethylidenecyclopropane.
- Ethylidene iodide, action of moist metallic oxides on (CARO), A., i, 331.  
action of water on (CARO), A., i, 331.  
action of potash on (CARO), A., i, 331.
- Ethylimidocarbonic acid, ethylic salt of (NEF), A., i, 73.
- Ethylimidochlorocarbonic acid, ethylic salt of (NEF), A., i, 73.
- Ethylimidochloroformyl cyanide (NEF), A., i, 74.
- Ethylimidocyanocarbonic acid, ethylic salt of (NEF), A., i, 73.
- Ethylimine, thio- (LENGFIELD and STIEGLITZ), A., i, 79.
- Ethylketole (WOLFF), A., i, 87.  
bromo- (WOLFF), A., i, 87.  
phenylhydrazone and osazone of (WOLFF), A., i, 87.
- Ethyllactylcarbamide. See Methyl-ethylhydantoin.
- Ethylmalonic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.  
hydrolysis of (HJELT), A., i, 205.  
action of ethylenic bromide on (BISCHOFF), A., i, 129.
- sodio-, ethylic salt, action of ethylic  $\alpha$ -bromobutyrate on (BISCHOFF), A., i, 467.  
action of ethylic  $\alpha$ -bromisobutyrate on (BISCHOFF), A., i, 467.  
action of ethylic chloro- and bromomalonates on (BISCHOFF), A., i, 528.  
action of ethylic  $\alpha$ -bromopropionate on (BISCHOFF), A., i, 467.  
action of ethylic  $\alpha$ -bromisovalerate on (BISCHOFF), A., i, 467.  
action of ethylic  $\beta$ -iodopropionate on (AUWERS and TITHERLEY), A., i, 642.

- Ethylmauveine, discovery of (HOFMANN LECTURE), T., 618.
- Ethylmesitylene. See 1 : 3 : 5 : 2-Tri-methylethylbenzene.
- o*-Ethylmethylbenzoylpropionic acid (MÜHR), A., i, 232.
- Ethylnitramine, action of  $\beta$ -naphthol and aluminium on (THIELE and MEYER), A., i, 407.
- Ethylnitrolic acid, action of ethylic chloroformate on (NEF and JONES), A., i, 460, 461.
- Ethylloxamide and the biuret reaction (SCHIFF), A., i, 632.
- Ethylphenanthridine and its salts (PICTET and HUBERT), A., i, 53, 483.
- Ethylphenonaphthazone and its sulphate (KEHRMANN and FÜHNER), A., i, 511.
- Ethyl-*o*-phenylenediamine, condensation of, with hydroxynaphthaquinone and dihydroxyquinone (KEHRMANN and FÜHNER), A., i, 511.
- Ethylphthalimide (BLACHER), A., i, 33.
- Ethylcyclopropane, iodo- (GUSTAVSON), A., i, 669.
- Ethylpropiohydantoin. See Methyl-ethylhydantoin.
- Ethylpropylisobutylammonium chloride, optically active (HOFMANN LECTURE), T., 671.
- Ethylisopropylisobutylphosphine and its methiodide (HOFMANN LECTURE), T., 682.
- Ethylpropyl- $\psi$ -nitrole. See Pentane,  $\beta$ -nitro- $\beta$ -nitroso-.
- Ethylsafranil (JAUBERT), A., i, 325.
- Ethylsaligenylcamphor, crystallography of (MINGUIN), A., i, 694.
- d*-Ethylsantonous acid and its ethylic salt (ANDREOCCI), A., i, 183.
- l*-Ethylsantonous acid and its ethylic salt (ANDREOCCI), A., i, 184.
- Ethylsantonous acid, racemic (ANDREOCCI), A., i, 185.
- Ethylsuccinic acid, ethylic salt (MICHAEL), A., i, 597.
- Ethylsuccinimide. See Succinethyl-imide.
- Ethylsulphonic acid, methylamides of, action of nitric acid on (FRANCHIMONT), A., i, 602.
- $\beta$ -Ethyltaurine (BOOKMAN), A., i, 200.
- $\beta$ -Ethylthiazoline  $\mu$ -hydrosulphide (BOOKMAN), A., i, 200.
- Ethylthienyltriphenylmethane (WEISSE), A., i, 565.
- Ethylthiocarbimide, melting point of (v. SCHNEIDER), A., ii, 290.
- action of hydrogen sulphide on (PONZIO), A., i, 636.
- Ethyl- $\alpha$ -thiocarbonic acid, potassium salt of (DORAN), T., 341.
- Ethyltoluene. See Methyl-ethylbenzene.
- Ethyltriethylphosphonium bromide, brom-, preparation of (HOFMANN LECTURE), T., 678.
- action of trimethylamine and triethylamine on (HOFMANN LECTURE), T., 679.
- Ethyltrimethylene. See Ethylcyclopropane.
- Ethylvalerolactone. See Heptolactone.
- Eucalyptus oil, hydrocarbon from (WALLACH and HERBIG), A., i, 191.
- Euchresta Horsfieldii*, occurrence of cytosine in (PLUGGE), A., ii, 61.
- Eudiometer, compensatory (VON THAN), A., ii, 621.
- Eugenol, synthesis and constitution of (MOUREAU), A., i, 215.
- magnetic rotatory power, &c., of (PERKIN), T., 1127, 1142, 1247.
- thio- (VOSWINKEL), A., i, 378.
- iso*-Eugenol, magnetic rotatory power &c., of (PERKIN), T., 1127, 1147, 1247.
- ethyl ether dibromide, action of sodium ethoxide on (HELL and PORTMANN), A., i, 357.
- methyl and ethyl ether dibromides, ketones from (HELL), A., i, 169.
- Eugenolacetic acid and its salts (GASSMANN), A., i, 424.
- iso*-Eugenolacetic acid (GASSMANN), A., i, 424.
- Euppitonic acid. See Hexamethoxyrosolic acid.
- Eurhodines, nomenclature of (JAUBERT), A., i, 326.
- Eurotopsis Gayoni*, fermentation of maltose by (LABORDE), A., ii, 322.
- Eutropic series of elements (ORTLOFF), A., ii, 355.
- Euxanthone, disodium, dipotassium, calcium, and barium derivatives of (MANN and TOLLENS), A., i, 449.
- non-formation of acid compounds of (PERKIN), T., 1440; P., 1896, 167.
- Euxenite (?) from Lake Ladoga (ERDMANN), A., ii, 570.
- from Norway (ERDMANN), A., ii, 570.
- Evansite from Tasmania (SMITH), A., ii, 34.
- Excelsin, the proteid of Brazil nut (OSBORNE and CAMPBELL), A., i, 716.
- Expansion of solutions. See Heat.
- Explosion of endothermic gases (MAQUENNE), A., ii, 87.
- of mixtures of cyanogen, oxygen, and

- nitrogen, rate of (DIXON, STRANGE, and GRAHAM), T., 761; P., 1896, 53.
- Explosion wave in chlorine peroxide, rate of the (DIXON and HARKER), T., 791; P., 1896, 57.
- Explosive mixtures of gases with air (CLOWES), P., 1895, 201.
- Extraction apparatus (v. RIJN), A., ii, 17.
- for liquids (KURBATOFF), A., ii, 355.

## F.

- "Factis" (caoutchouc substitute), brown compound of, with sulphur (HENRIQUES), A., i, 204.
- Fæces, excretion of calcium salts in the (REY), A., ii, 489.
- koprosterol from (BONDZYŃSKI), A., ii, 329.
- sources of xanthine bases in (WEINTRAUD), A., ii, 490.
- urobilin from human (GARROD and HOPKINS), A., i, 712.
- Fahlore. See Tetrahedrite and Tennantite.
- Fat formation, influence of proteids, fat, starch, and cellulose on (LEHMANN), A., ii, 262.
- absorption of, from alimentary canal (LEVIN), A., ii, 376.
- influence of, on metabolism (WICKE and WEISKE), A., ii, 535.
- relation of, to the liver (NOËL-PATON), A., ii, 316.
- conversion of, into glycogen in the silkworm (COUVREUR), A., ii, 317.
- composition of, from milk of different animals (SOLBERG), A., ii, 378.
- human, composition of (MITCHELL), A., ii, 570.
- deer, examination of (BECKURTS and OELZE), A., ii, 81.
- Fats, sulphur additive compounds of, and their compounds with sulphur chloride (ALTSCHUL), A., i, 127.
- development of rancidity in (SPAETH), A., i, 664.
- colour tests for (LEWKOWITSCH), A., ii, 398.
- examination of, by the refractometer (BECKURTS and HEILER), A., ii, 81.
- iodine numbers of (SCHWEITZER and LUNGWITZ), A., ii, 398.
- Reichert-Meissl numbers of (HENRIQUES), A., ii, 281.
- saponification in the cold, numbers, &c. (HENRIQUES), A., ii, 281.
- Fats, estimation of, in milk (WELLER), A., ii, 228; (LONGI), A., ii, 228.
- in pasteurised milk, estimation of, by creamometers (CAZENEUVE and HADDON), A., ii, 130.
- estimation of, in cheese (HENZOLD), A., ii, 680; (STUTZER), A., ii, 684.
- solid, estimation of, in mixtures of fats and oils (WAINWRIGHT), A., ii, 550.
- animal, estimation of solid fat in mixtures of (WAINWRIGHT), A., ii, 550.
- vegetable, estimation of solid fat in mixtures of (WAINWRIGHT), A., ii, 550.
- Fats. See also Butter; Cacao butter; Lard; Milk; Wool-grease.
- Fatty compounds, unsaturated, action of sulphur on (ALTSCHUL), A., i, 126.
- Fayalite from Massachusetts (PENFIELD and FORBES), A., ii, 373.
- "Feather ore" (LASPEYRES and KAISER), A., ii, 660.
- Felspar from mica-syenite in Saxony (HENDERSON), A., ii, 533.
- from Lyttelton, N.Z. (MARSHALL), A., ii, 193.
- See also Albite; Anorthite; Labradorite; Microcline; Oligoclase; Orthoclase.
- Felspar group (GLINKA), A., ii, 568.
- Felspars (albite-anorthite), isomorphism of (WALLERANT), A., ii, 189.
- from the nephelite-syenite of Greenland (USSING), A., ii, 372.
- of igneous rocks (FOUQUÉ), A., ii, 532.
- Fenchone from oil of anise (BOUCHARDAT and TARDY), A., i, 449.
- Fennel oil, hydrocarbon from (WALLACH and HERBIG), A., i, 101.
- Fergusonite from Norway (ERDMANN), A., ii, 570.
- Ferment, oxidising, of *Boletus cyanescens* (BOURQUELOT and BERTRAND), A., ii, 383.
- of cellulose (OMELIANSKI), A., ii, 203.
- diastatic, in sugar-beet (GONNEMANN), A., ii, 381.
- diastatic, non-conversion of, into glycolytic (NASSE and FRAMM), A., i, 398.
- soluble, in organs after death (BRONDI), A., ii, 616.
- sugar-forming, in blood-serum (BOURQUELOT and ELEY), A., ii, 119.
- Fermentation, influence of aeration and temperature on (RIETSCH and HEISELIN), A., ii, 53.



- Fermentation by yeast, influence of oxygen and hydrogen on (RAPP), A., ii, 668.
- use of thymol and toluene to prevent (FISCHER and LINDNER), A., i, 196.
- of *Asphodelus ramosus* and *Scilla maritima* (RIVIÈRE and BAILHACHE), A., ii, 203.
- of furfuroids by yeast (CROSS, BEVAN, and SMITH), T., 816; P., 1896, 96.
- of furfuroids from barley straw by yeast (CROSS, BEVAN, and SMITH), T., 1607; P., 1896, 174.
- of musts with elliptical and apiculated yeasts (RIETSCHE and HEISELIN), A., ii, 53.
- of wine, use of pure cultivated yeast in (MÜLLER), A., ii, 201.
- of sugars by Friedländer's pneumococcus (GRIMBERT), A., ii, 322.
- of cane sugar with different yeasts (HIEPE), A., ii, 320.
- of maltose by *Eurotiopsis Gayoni* (LABORDE), A., ii, 322.
- of polysaccharides (FISCHER and LINDNER), A., i, 195.
- of urea, products found in (ADENEY), A., ii, 326.
- of uric acid by micro-organisms (GÉRARD), A., ii, 668.
- Fermentation, alcoholic, heat developed by (BOUFFARD), A., ii, 12.
- action of *Aspergillus niger* on (BOURQUELOT and HÉRISSEY), A., ii, 321.
- and lactic, of maltose (BOURQUELOT), A., i, 111.
- Fermentation, lactic, action of metallic salts on (CHASSEVANT), A., ii, 122.
- Fermentation, mannitol, in Sicilian wines (BASILE), A., ii, 121.
- Fermentative changes in natural and polluted waters (ADENEY), A., ii, 323.
- Ferments, action of unorganised (TAMMANN), A., ii, 243.
- solubility and activity of, in alcohol (DASTRE), A., i, 398.
- Ferments. See also Cytase; Diastase; Enzymes; Fibrin ferment; Gaultherase; Lactase; Oxydases; Tyrosinase; Yeast.
- Ferratin, absorption of, in the alimentary canal (TIEMANN), A., ii, 487.
- Ferric. See under Iron.
- Ferrophényl mercaptide, unitroso-, preparation of (HOFMAN and WIEDE), A., i, 291.
- Ferrous. See under Iron.
- Fertilisers. See Manures, under Agricultural chemistry (Appendix).
- Ferula*, sagapen from a Persian (Hohenadel), A., i, 58.
- Fever, presence of albumose in urine during (KREHL and MATTHES), A., ii, 667.
- Fibrin, vegetable, constitution of (FLEURENT), A., i, 112.
- Fibrin-ferment, nature of (PEKELHARING), A., ii, 488.
- Fibrolite from Bohemia (KATZER), A., ii, 188.
- Filter, convenient form of hot (KREIDER), A., ii, 161.
- Filtration at high temperatures, apparatus for (POSTOÉFF), A., ii, 516.
- of crystalloids from colloids (MARTIN), A., ii, 665.
- Fiorite from Tuscany (DAMOUR), A., ii, 109.
- Fire-clays, estimation of sodium and potassium in (CAMERON), A., ii, 392.
- Firedamp, argon and nitrogen in (SCHLOESING), A., ii, 655.
- Fisetin, identity of, with colouring matter of *Querbracho colorado* (PERKIN and GUNNELL), T., 1306; P., 1896, 158.
- relation of, to luteolin (HERZIG), A., i, 494.
- acetyl and benzoyl derivatives of (PERKIN and GUNNELL), T., 1305; P., 1896, 158.
- Fish oils, analysis of (VEDRÖDI), A., ii, 81.
- Flames (EDER), A., ii, 287.
- structure of hydrocarbon (LEWES), T., 235; P., 1896, 2; (SMITHELLS), P., 1896, 3.
- of hydrocarbons, cause of the luminosity of (LEWES), A., ii, 141; (SMITHELLS), P., 1896, 3.
- acetylene theory of the luminosity of hydrocarbon (LEWES), T., 226; P., 1896, 1; (SMITHELLS), P., 1896, 3.
- temperature of certain (LEWES), T., 228; P., 1896, 2; (HARTLEY), T., 842-844; P., 1896, 98; (HARCOURT, THORPE, RÜCKER, SMITHELLS), P., 1896, 3-5.
- of the Bunsen burner (BOHN), A., ii, 140.
- of cyanogen and carbonic oxide undergoing explosive combustion, duration of the (DIXON, STRANGE, and GRAHAM), T., 763; P., 1896, 54.
- Flask, measuring (BILTZ), A., ii, 671.
- Flavopurpurin, discovery of (HOFMANN LECTURE), T., 633.

- Flavopurpurin, hydroxylation of (WACKER), A., i, 694.
- Flesh formation, influence of proteids, fat, starch, and cellulose on (LEHMANN), A., ii, 262.
- Flesh, mineral constituents of (KATZ), A., ii, 377.
- Flint and steel, temperature of sparks from (CHESNEAU), A., ii, 407.
- Fluorflavine and its hydrochloride (HINSBERG and POLLAK), A., i, 394.
- chloro- (HINSBERG and POLLAK), A., i, 394.
- Fluorene, action of chlorine or bromine on (GRAEBE and VON MANTZ), A., i, 442.
- oxidation of (HODGKINSON), P., 1896, 110.
- Fluorenone (*diphenylene ketone*) (STAEDEL), A., i, 374.
- and its oxime (KERP), A., i, 238.
- phenylhydrazine of (GOLDSCHMIEDT and SCHRANZHOFER), A., i, 174.
- Fluorenone,  $\beta$ -*dibromo*-, phenylhydrazine of (GOLDSCHMIEDT and SCHRANZHOFER), A., i, 174.
- $\delta$ -*dibromo*-, and its phenylhydrazine (GOLDSCHMIEDT and SCHRANZHOFER), A., i, 174.
- chloro-, and its phenylhydrazine (GOLDSCHMIEDT and SCHRANZHOFER), A., i, 174.
- $\beta$ -*dichloro*-, and its phenylhydrazine (GOLDSCHMIEDT and SCHRANZHOFER), A., i, 174.
- nitro-, phenylhydrazine of (GOLDSCHMIEDT and SCHRANZHOFER), A., i, 174.
- $\alpha$ -*dinitro*-, phenylhydrazine of (GOLDSCHMIEDT and SCHRANZHOFER), A., i, 174.
- $\beta$ -*dinitro*-, and its phenylhydrazine (GOLDSCHMIEDT and SCHRANZHOFER), A., i, 174.
- Fluorescein, ethylic ether, quinoidal monacetyl derivative of (HERZIG and MEYER), A., i, 237.
- tetrabromo*-, (*eosin*), composition of (HOFMANN LECTURE), T., 626.
- detection of, in wines (BELAR), A., ii, 630.
- allo*-Fluorescein (PAWLEWSKI), A., i, 50.
- 3-Fluoresceincarboxylic acid (GRAEBE and LEONHARDT), A., i, 437.
- 3-Fluoresceincarboxylic anhydride and its acetyl derivative (GRAEBE and LEONHARDT), A., i, 438.
- 6-Fluoresceincarboxylic acid (GRAEBE and LEONHARDT), A., i, 437.
- Fluoresceinsulphone. See Sulphone-fluorescein.
- Fluorine :—
- Hydrogen fluoride, gaseous, action of, on salts of elements of the fifth group (SMITH and MEYER), A., ii, 164.
- estimation of, volumetrically (STAHL), A., ii, 621.
- effect of, on algæ (WYPFEL), A., ii, 266.
- Fluorine, detection of, in beer (BRAND), A., ii, 447; (HEFELMANN and MANN), A., ii, 497.
- detection of, in wine (NIVIÈRE and HUBERT), A., ii, 497.
- estimation of, in silicates (REICH), A., ii, 531.
- Fluoro-derivatives. See :—
- Benzene.
- Benzoic acid.
- Food, mineral, of lower fungi (MOLISCH), A., ii, 207.
- presence of copper in (LEHMANN), A., ii, 486.
- amount of iron in (STOCKMAN), A., ii, 43.
- anti-peptone from glands as a (ELINGER), A., ii, 536.
- casein as a (MARCUSE), A., ii, 663.
- mannan as a (TSUJI), A., ii, 44.
- sugar as a (STOKVIS, MOSO, and HARLEY), A., ii, 44.
- Food. See also under Agricultural chemistry (Appendix).
- Formaldehyde, discovery of (HOFMANN LECTURE), T., 706.
- production of gaseous (BROCHET), A., i, 345.
- occurrence of a condensation product of pentose with, in cellulose (CROSS, BEVAN, and SMITH), T., 813; P., 1896, 96.
- hydrazine of (WALKER), T., 1279.
- reactions of, with various reagents (LEE), A., i, 124.
- action of ammonium cyanide on (CURTIUS), A., i, 337.
- action of halogens on (BROCHET), A., i, 276, 277.
- action of nitric acid on (BACH), A., i, 636.
- action of, on white of egg (BLUM), A., i, 659.
- action of phenylhydrazine on (WALKER), T., 1280.
- action of water on (DELÉPINE), A., i, 637.
- compounds of, with polyhydric alcohols (SCHULZ and TOLLENS), A., i, 115.
- condensation of, with *o*-aminobenzyl-phenylhydrazine (BUSCH), A., i, 508.

- Formaldehyde, condensation of, with anhydroenneaheptitol (APEL and WITT), A., i, 405.  
condensation of, with piperazine (ROSDALSKY), A., i, 257.
- Formaldehyde, trithio-, preparation of (HOFMANN LECTURE), T., 707.
- Formaldehyde (*formalin*), detection of (GOLDSCHMIDT), A., i, 543; (ROMYŇ), A., ii, 280; (RICHMOND and BOSELEY), A., ii, 583; (HEHNER), A., ii, 583.
- estimation of (KLAR), A., ii, 226; (SMITH), A., ii, 583.
- Paraformaldehyde, condensation of, with pyruvic acid (KALTWASSER), A., i, 670.
- Formamide, action of sodium hypochlorite on (DE CONINCK), A., i, 282.  
sodium, silver derivatives (FREER and SHERMAN), A., i, 612.
- Formamidobenzene, bromo- (SLOSSON), A., i, 216.  
chloro- (SLOSSON), A., i, 216.
- 2-Formamidodiphenyl (PICTET and HUBERT), A., i, 52, 483.
- Formanilide, preparation of (LUX-MOORE), T., 190; P., 1895, 149.  
and its derivatives (CLAISEN), A., i, 91.  
electrical conductivity of solutions of (EWAN), T., 96; P., 1896, 8.  
magnetic rotatory power, &c., of (PERKIN), T., 1114, 1216, 1246.  
action of caustic soda on (HOFMANN LECTURE), T., 704.  
action of ethylic chlorocarbonate on (FREER and SHERMAN), A., i, 612.  
mercury compound of (WHEELER and MCFARLAND), A., i, 609.  
mercury bromide (WHEELER and MCFARLAND), A., i, 609.  
mercury chloride (WHEELER and MCFARLAND), A., i, 609.  
mercury acetate. See Acetic acid, formanilide mercury salt of.  
sodium derivative, preparation of (CLAISEN), A., i, 92.  
sodium ethoxide (COHEN and ARCH-DEACON), T., 94; P., 1896, 8.
- Formanilide, *p*-chloro- (SLOSSON), A., i, 216.  
2:4-dichloro- and its silver salt (WHEELER and BOLTWOOD), A., i, 478.  
iodo-, mercury compound of (WHEELER and MCFARLAND), A., i, 609.  
thio-, preparation of (HOFMANN LECTURE), T., 710.  
electrical conductivity of the sodium salt of (EWAN), T., 97; P., 1896, 8.
- Formazyl hydride (WALTHER), A., i, 166.  
preparation of (CLAISEN), A., i, 92.
- Formazylformic acid, ethylic salt (VON PECHMANN), A., i, 679.
- Formazyl-*p*-hydroxybenzene (WEDEKIND), A., i, 631.
- Formazyl-*p*-methoxybenzene (WEDEKIND), A., i, 630.
- Formazylsulphonic acid, potassium salt (VON PECHMANN), A., i, 679.  
*p*-bromo- (VON PECHMANN), A., i, 680.
- Formic acid, specific heat of solid and liquid (MASSOL and GUILLOT), A., ii, 8.  
heat of evaporation of (MARSHALL), A., ii, 589.  
electrolytic dissociation of salts dissolved in (ZANNINOVICH-TES-SARIN), A., ii, 352.  
and water, distillation of a mixture of (SOREL), A., i, 463.  
condensation of, with pentoses (CROSS, BEVAN, and SMITH), T., 813; P., 1896, 96.
- Formic acid, amylc salt, molecular volume of, in organic solvents (NICOL), T., 143; P., 1895, 237.  
action of sodium on (FREER and SHERMAN), A., i, 162.  
crotonylic salt (CHARON), A., i, 661.  
ethylic salt, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237; (RAMSAY and MARSHALL), A., ii, 349.  
molecular volume of, in organic solvents (NICOL), T., 143; P., 1895, 237.  
action of sodium on (FREER and SHERMAN), A., i, 612.  
ethylic ortho-salt, action of ethylic acetoacetate on (CLAISEN), A., i, 463.  
action of, on primary aromatic amines (WALTHER), A., i, 534.  
methylc salt, heat of evaporation of (MARSHALL and RAMSAY), A., ii, 349; (BECKMANN, GERNHARDT, and FUCHS), A., ii, 237.  
propylic salt, heat of evaporation of (MARSHALL and RAMSAY), A., ii, 349.
- Formic acid, amino-, methylamides of, action of nitric acid on (FRANCHIMONT), A., i, 602.  
chloro-, *m*-diethylaminophenylic salt of (MEYENBURG), A., i, 292.  
chloro-, *m*-dimethylaminophenylic salt of (MEYENBURG), A., i, 292.

- Formic acid, estimation of (FREYER), A., ii, 80.
- Formimide, hydrochloride of ethylic ether of, probably a homogeneous substance (PINNER), A., i, 9.
- Formobenzanilide, preparation of (WHEELER and MCFARLAND), A., i, 609.
- Formobenzo-*p*-toluidide (WHEELER and MCFARLAND), A., i, 609.
- Formocarbamide (VON GORSKI), A., i, 667.  
action of malic, malonic, oxalic, racemic, and succinic acids on (VON GORSKI), A., i, 668.
- Formomalonuric acid (VON GORSKI), A., i, 667.
- Formomaluric acid (VON GORSKI), A., i, 668.
- Formo- $\alpha$ -naphthylamide, mercury compound of (WHEELER and MCFARLAND), A., i, 609.
- Formophenyldiethylhydrazide (FREER and SHERMAN), A., i, 612.
- Formophenyldiazide, preparation of (CLAISEN), A., i, 92.  
disodium derivative of (COHEN and ARCHDEACON), T., 95; P., 1896, 8.
- $\alpha$ -Formophenyldiazide,  $\beta$ -ethyl derivative of (FREER and SHERMAN), A., i, 611.
- $\beta$ -Formophenyldiazide, sodio-, ethyl derivative of (FREER and SHERMAN), A., i, 611.
- "Formopyrine," identity of, with methylenedianitrypyrine (STOLZ), A., i, 628.
- Formoracemuric acid (VON GORSKI), A., i, 668.
- Formosuccinuric acid and its methylic salt (VON GORSKI), A., i, 668.
- Formo-*p*-toluidide, mercury compound of (WHEELER and MCFARLAND), A., i, 609.  
mercury chloride (WHEELER and MCFARLAND), A., i, 609.
- Formoxaluric acid (VON GORSKI), A., i, 668.  
action of heat on (VON GORSKI), A., i, 668.
- Formylacetic acid, sodio-ethylic salt, action of phenylic isocyanate on (MICHAEL), A., i, 594.
- Formyladipic acid and its hydrolysis (WILLSTATTER), A., i, 267.
- Formyl-*o*-dinitrobenzylbenzidine (TROEGER and EGGERT), A., i, 563.
- Formyl-*p*-ethoxy-*m*-tolyl-1 : 2 : 5-tolyl-enediamine (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHOLNIK), A., i, 26.
- Formyl- $\alpha$ -hydroxy- $\alpha\beta$ -diphenylethyl-amine. See  $\alpha$ -Hydroxy- $\alpha\beta$ -diphenylethylamine, formyl.
- Formylia. See Ethylenediamine.
- Formylphenylacetic acid, ethylic salt of (WISLICENUS), A., i, 369, 552.  
constitution of (BRÜHL), A., i, 555.  
tautomeric forms of (TRAUBE), A., i, 593.
- Formylthymotic acid (HEYL and MEYER), A., i, 147.
- Forsterite from Monte Somma (ARZRUNI), A., ii, 309.
- Fractionating column (BERLEMONT), A., ii, 415.
- Freezing point. See Heat.
- French purple, discovery of (HOFMANN LECTURE), T., 608.
- Frog, cutaneous respiration in the (REID), A., ii, 42.
- Fructose. See Levulose.
- Fuchsine. See Rosaniline.
- Fuels, determination of the heat of combustion of (HEMPER), A., ii, 556.
- Fuller's earth from New South Wales (CARD), A., ii, 262.
- Fumaric acid, heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.  
sublimation temperature of, under small pressure (KRAFFT and DYES), A., ii, 89.  
amylc salt, rotatory power of (WALDEN), A., ii, 633.  
ethylic salt, action of ethylic iodide and zinc on (MICHAEL), A., i, 597.  
hydroxylamine salt of (TANATAR), A., i, 520.
- Fumaric acid, bromo- (MICHAEL), A., i, 131.  
melting point of and behaviour towards aqueous potash of (MICHAEL), A., i, 131.  
silver salt, action of heat on the aqueous solution of (MICHAEL), A., i, 131.  
amylc salt, rotatory power of (WALDEN), A., ii, 633.
- d*-bromo-, ethylic salt, loss of halogen by (MICHAEL and CLARK), A., i, 132.
- chloro-, action of aqueous potash on (MICHAEL), A., i, 131.  
action of hydrazine and phenylhydrazine on (RUHEMANN), T., 1396; P., 1896, 166.  
amylc salt, rotatory power of (WALDEN), A., ii, 633.  
ethylic salt, condensation of, with ethylic acetoacetate (RUHEMANN and TYLER), T., 532; P., 1896, 73.

- Fumaric acid, chloro-, ethylic salt, condensation of, with ethylic benzoylacetate (RUHEMANN and WOLFF), T., 1384; P., 1896, 166.  
condensation of, with ethylic methylacetoacetate (RUHEMANN and WOLFF), T., 1386; P., 1896, 166.
- Fumaric peroxide (VANINO and THIELE), A., i, 597.
- Fumarylazoisimide (RADENHAUSEN), A., i, 139.
- Fumarylcarbamic acid, ethylic salt (RADENHAUSEN), A., i, 139.
- Fumarylhydrazide (RADENHAUSEN), A., i, 138.
- Fungi found on different grapes (MULLER), A., ii, 201.  
lower, mineral food of (MOLISCH), A., ii, 207.  
nutrition of, by different organic compounds (LOEW), A., ii, 55.  
hydrolysing property of emulsin from (BOURQUELOT and HÉRISSEY), A., i, 195.  
oxidising ferments of certain (BOURQUELOT and BERTRAND), A., ii, 383.  
non-formation of tannin in (NAUMANN), A., ii, 538.  
laccase in (BOURQUELOT and BERTRAND), A., ii, 268.
- Funnel, automatic hot-water (POSTOLÉFF), A., ii, 516.
- Furazandicarboxylic acid from benzenedioxime (ZINCKE), A., i, 430.
- Furfuraldehyde, preparation of, from glycuronic acid (RAYMANN and SULC), A., i, 459.  
percentage of, in cellulose, and soluble products of cellulose (CROSS, BEVAN, and SMITH), T., 807; P., 1896, 96.  
action of ethylic orthoformate on (CLAISEN), A., i, 464.  
condensation of, with acetophenone (KOSTANECKI and PODRAJANSKY), A., i, 688.
- Furfuroids, condition of, at different stages of plant (CROSS, BEVAN, and SMITH), T., 1609; P., 1896, 175.  
relation of, to total carbohydrates from barley straw (CROSS, BEVAN, and SMITH), T., 1606; P., 1896, 174.  
in barley, effect of weather on (CROSS, BEVAN, and SMITH), A., ii, 122.  
oxidation of, by bromine (CROSS, BEVAN, and SMITH), T., 815; P., 1896, 96.
- Furfuroids, fermentation of, by yeast (CROSS, BEVAN, and SMITH), T., 816; P., 1896, 96.  
osazones and yeast, fermentation of, from barley straw (CROSS, BEVAN, and SMITH), T., 1607; P., 1896, 174.  
reaction of, with hydrogen peroxide (CROSS, BEVAN, and SMITH), T., 1607; P., 1896, 174.  
estimation of, in plants (CROSS, BEVAN, and SMITH), T., 1604; P., 1896, 174.  
separation of, from cellulose by acid hydrolysis (CROSS, BEVAN, and SMITH), T., 806; P., 1896, 96.
- Furfurylideneacetophenone (KOSTANECKI and PODRAJANSKY), A., i, 689.
- Furfurylidenediacetophenone (KOSTANECKI and PODRAJANSKY), A., i, 689.
- Furfurylidenemalonic acid, ethylic salt, additive compound of, with piperidine (GOLDSTEIN), A., i, 436.
- Furnace, simple form of electric (WALKER), A., ii, 462.
- Fusel oil, estimation of, in rectified spirits (GLASENAPP), A., ii, 277; (STUTZER and MAUL), A., ii, 504.

## G.

- Gabbro, banded, from Skye (GEIKIE and TEALL), A., ii, 191.
- Gadolinite from Norway (ERDMANN), A., ii, 570.
- Galactan, occurrence of, in *Sterculia plantanifolia*, *Vitis pentaphylla*, *Opuntia* and other plants (YOSHIMURA), A., ii, 60.  
Paragalactan, occurrence of, in cell-wall of cotyledons (SCHULZE), A., ii, 619.
- Galactitol from yellow lupin seed (RITTHAUSEN), A., i, 405.  
hydrolysis of (RITTHAUSEN), A., i, 405.
- $\beta$ -Galactochloral and its tetracetyl and tribenzoyl derivatives (HANRIOT), A., i, 519.  
oxidation of (HANRIOT), A., i, 519.
- Galactose, action of lead acetate on the rotatory power of (SVOBODA), A., i, 406.  
action of dilute alkalis on (DE BRUYN), A., i, 116.  
action of lead hydroxide and potash on (DE BRUYN and VAN EKENSTEIN), A., i, 588.  
action of methyl alcoholic ammonia

- on (DE BRUYN and VAN LEENT), A., i, 119.
- Galactose, action of chloral on (HANNOT), A., i, 519.
- action of glyoxylic acid on (BOETTINGER), A., i, 6.
- estimation of, by Fehling's solution (KJELDAHL), A., ii, 581.
- reducing power of, on ammoniacal silver nitrate (HENDERSON), T., 152; P., 1896, 9.
- Galactose- $\alpha$ -allylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Galactose-amine (DE BRUYN and VAN LEENT), A., i, 119.
- action of methylic alcohol and ether on (DE BRUYN and VAN LEENT), A., i, 587.
- Galactose-amine-ammonia (DE BRUYN and VAN LEENT), A., i, 1.9.
- Galactose-aminoguanidine chloride and sulphate (WOLFF), A., i, 78.
- Galactose- $\alpha$ -amylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Galactose- $\alpha$ -benzylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Galactosebenzylmercaptal (LAWRENCE), A., i, 272.
- Galactosecarboxylic acid. See  $\alpha$ -Galaheptonic acid.
- Galactose-ethylenemercaptal (LAWRENCE), A., i, 272.
- Galactose- $\alpha$ -ethylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Galactosenaphthylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Galactosetrimethylenemercaptal (LAWRENCE), A., i, 272.
- $\alpha$ -Galaheptitol (FISCHER), A., i, 118.
- $\alpha$ -Galaheptonic acid (galactosecarboxylic acid) (FISCHER), A., i, 117.
- phenylhydrazide of (FISCHER), A., i, 117.
- $\beta$ -Galaheptonic acid (FISCHER), A., i, 118.
- oxidation product of, with nitric acid (FISCHER), A., i, 118.
- phenylhydrazide of (FISCHER), A., i, 118.
- $\alpha$ -Galaheptose and its osazone and phenylhydrazone (FISCHER), A., i, 117.
- $\beta$ -Galaheptose (FISCHER), A., i, 118.
- Galaoctitol (FISCHER), A., i, 118.
- Galaoctonic acid (FISCHER), A., i, 118.
- lactone of (FISCHER), A., i, 118.
- phenylhydrazide of (FISCHER), A., i, 118.
- Galactose and its osazone and phenylhydrazone (FISCHER), A., i, 118.
- Galena coating cerussite from Montana (HOBBS), A., ii, 33.
- from Broken Hill, N.S.W. (SMITH), A., ii, 30.
- zinciferous, from Broken Hill, N.S.W. (LIVERSIDGE), A., ii, 658.
- analysis of (ECKENROTH), A., ii, 501.
- Galipea officinalis*, alkaloids of (BECKERTS), A., i, 66.
- Gallacetophenone. See Alizarin-yellow.
- Gallic acid, occurrence of, in *Quercus bracho colorado* (PERKIN and GUNNELL), T., 1307; P., 1896, 158.
- occurrence of, in sumach (PERKIN and ALLEN), T., 1302; P., 1896, 157.
- constitutional formula of (SCHIFF), A., i, 370.
- oxidation of (BERTRAND), A., i, 534.
- action of chlorine on (BIÉTRIX), A., i, 651.
- Gallic acid, dibromo-, action of chlorine on (BIÉTRIX), A., i, 651.
- dichloro- (BIÉTRIX), A., i, 651.
- Gallium and indium in blende from New South Wales (KIRKLAND), A., ii, 183.
- Gallotannic acid, aluminium salt of (GEORGES), A., ii, 451.
- Gall-stones, lithofellic acid from (JÜNGER and KLAGES), A., i, 194.
- Garlic, inulin of (CHEVASTELON), A., i, 5.
- Garnet from Colorado (EAKINS), A., ii, 39.
- from Moravia, alteration of (BARVIŘ), A., ii, 312.
- group (WEINSCHENK), A., ii, 312.
- See also Almandine; Andradite; Es-sonite; Grossular; Spessartite.
- Gas analysis, compensatory eudiometer (VON THAN), A., ii, 621.
- Gas burette, modification of (BLEIER), A., ii, 70, 271, 573.
- Bunsen's, modification of (SCHATERNIKOFF and SETSCHENOFF), A., ii, 332.
- Gas, coal-, explosive mixtures of air and (CLOWES), P., 1895, 201.
- estimation of benzene in (NOYES and BLINKS), A., ii, 128.
- estimation of sulphur in (MABERY), A., ii, 387.
- estimation of sulphurous anhydride and sulphuric acid in products of combustion of (DENNSTEDT and AHRENS), A., ii, 217.
- flames, influence of sulphurous anhydride in, on quantitative estimations (MULDER), A., ii, 333.
- Gas pipette (BLEIER), A., ii, 70, 271; (LIDOFF), A., ii, 385.

- Gases, effect of electric sparks on (HOFMANN LECTURE), T., 727.  
 electric discharge through (LEHMANN), A., ii, 143.  
 connection between the dielectric constant and the valency of (LANG), A., ii, 144.  
 determination of the density of (MOISSAN and GAUTIER), A., ii, 294.  
 liquefaction of (DEWAR), P., 1895, 221; (LINDE), A., ii, 232.  
 solubility of solids in (ARCTOWSKI), A., ii, 635.  
 endothermic, explosion of (MAQUENNE), A., ii, 87.  
 combination of, in equal volumes (DIXON), T., 780; P., 1896, 56.  
 filling vacuum tubes with (YOUNG and DARLING), A., ii, 3.  
 given off in fermentative changes in natural and polluted waters, analysis of (ADENEY), A., ii, 323.  
 in human stomach (WISSEL), A., ii, 196.  
 Gastric digestion. See Digestion.  
 Gastric juice, causes of secretion of acid of (KOEPE), A., ii, 376.  
 estimation of hydrochloric acid in (SJOQUIST), A., ii, 496; (MORACZEWSKI), A., ii, 671.  
 Gaultherase, the ferment which hydrolyses gaultherin (BOURQUELOT), A., ii, 540.  
 solubility of, in alcohol (DASTRE), A., i, 398.  
*Gaultheria procumbens*, existence of gaultherase in (BOURQUELOT), A., ii, 540.  
 Gaultherin, identity of the glucoside of *Monotropa hypopithys* with (BOURQUELOT), A., ii, 540.  
 Gedanite, difference between succinite and (HELM), A., i, 57.  
 non-occurrence of free succinic acid in (HELM), A., i, 57.  
 Gehlenite in slags (HEBERDEY), A., ii, 371.  
 Gelatin, liquefaction of (DASTRE and FLORESCO), A., i, 196.  
 estimation of, in meat extracts (BÖMER), A., ii, 83; (STUTZER), A., ii, 84.  
 Gelatose, conversion of gelatin into (DASTRE and FLORESCO), A., i, 196.  
 Gelose, estimation of, in syrups, &c. (PY), A., ii, 342.  
 Gelseminine and its salts (GÖLDNER), A., i, 657.  
*Genista racemosus*, occurrence of cytisine in, and other plants of the same natural order (PLUGGE), A., ii, 61.  
 Gentisic acid, physiological action of (LIKHATSCHIEFF), A., ii, 492.  
 Gentisin, synthesis of (KOSTANECKI and TAMBOR), A., i, 369.  
 non-formation of acid compounds of (PERKIN), T., 1440; P., 1896, 167.  
 Geranaldehyde, constitution of (BARBIER and BOUVEAULT), A., i, 445.  
 Geranic acid, ethylic salt, from methylheptenone (BARBIER and BOUVEAULT), A., i, 445.  
 Geraniol from oil of pelargonium (BARBIER and BOUVEAULT), A., i, 446.  
 occurrence of, in essential oils (BERTRAM and GILDEMEISTER), A., i, 381.  
 behaviour of, towards formic acid (BERTRAM and GILDEMEISTER), A., i, 382.  
 oxidation of (BARBIER and BOUVEAULT), A., i, 345.  
 action of dibasic acids on (ERDMANN and HUTH), A., i, 198.  
 compound of, with camphoric acid (ERDMANN and HUTH), A., i, 198.  
 Geranium (*pelargonium*) oil (BARBIER and BOUVEAULT), A., i, 446.  
 Indian, French, African, and Réunion, composition of (BERTRAM and GILDEMEISTER), A., i, 381.  
 Spanish, African, and Réunion, composition of (TIEMANN and SCHMIDT), A., i, 384.  
 Gersdorffite from the Harz (KLOCKMANN), A., ii, 307.  
 from Ontario (HOFFMANN), A., ii, 191.  
 from Sardinia (LOVISATO), A., ii, 183.  
 Gibbsite, artificial (SCHULTEN), A., ii, 610.  
 Gland peptone. See Peptones.  
 Glass, spherulites in (HYNDMAN and BONNEY), A., ii, 614.  
 action of magnesium solution on (KONINCK), A., ii, 480.  
 action of water on (SPEZIA), A., ii, 257.  
 Glauconite from Co. Antrim (HOSKINS), A., ii, 434.  
 from Russia (ZEMJATSCHENSKY), A., ii, 568.  
 Glaucothane from Burma (BAUER), A., ii, 311.  
 from Piedmont (COLOMBA), A., ii, 569.  
 Gliadin (OSBORNE), A., i, 400.  
 Globulin, presence of, in diastase (OSBORNE), A., i, 399.

- Globulin from malt (OSBORNE and CAMPBELL), A., i, 714.  
 in peas and vetches (OSBORNE and CAMPBELL), A., i, 715.  
 (*tuberin*) in the potato (OSBORNE and CAMPBELL), A., i, 715.
- Glockerite from Colorado (PEARCE), A., ii, 613.
- Glucose, yeast (BAU), A., i, 453.
- Glucic acid (WINTER), A., i, 11, 12.
- apo*-Glucic acid (WINTER), A., i, 12.
- Glucoheptitol, compound of, with acetone (SPEIER), A., i, 77.
- $\alpha$ -Glucoheptonic acid, velocity of lactone formation of (HJELT), A., i, 597.
- Gluconic acid, calcium salt, action of formaldehyde and hydrochloric acid on (HENNEBERG and TOLLENS), A., i, 645.
- Glucosamine hydrochloride, oxime of (WINTERSTEIN), A., i, 520.
- d*-Glucose (*dextrose*), identity of, from different sources (O'SULLIVAN and STERN), T., 1691; P., 1896, 218.  
 synthesis of (HOFMANN LECTURE), T., 707.  
 formation of, from cocoa-nut shells (DE HAAS and TOLLENS), A., ii, 64.  
 formation of, from cellulose by hydrolysis (WINTERSTEIN), A., ii, 210.  
 relative proportion of, to levulose in sweet wines ((KÖNIG), A., ii, 79.  
 specific rotatory power of, from different sources (O'SULLIVAN and STERN), T., 1695; P., 1896, 218.  
 birotation of, in various solvents (TREY), A., ii, 139.  
 freezing points of dilute solutions of (ABEGG), A., ii, 588.  
 specific gravity of aqueous solutions of, from different sources (O'SULLIVAN and STERN), T., 1693; P., 1896, 218.  
 cupric reducing power of, from different sources (O'SULLIVAN and STERN), T., 1696; P., 1896, 218.  
 transformation of, into fructose and mannose (DE BRUYN and VAN EKENSTEIN), A., i, 116.  
 conversion of, into mannitol by fermentation (BASILE), A., ii, 121.  
 action of dilute alkalis on (DE BRUYN), A., i, 116.  
 action of lead hydroxide on (DE BRUYN and VAN EKENSTEIN), A., i, 588.  
 action of lead hydroxide and potash on (DE BRUYN and VAN EKENSTEIN), A., i, 588.  
 action of chloral hydrate on (MEUNIER), A., i, 334.  
 action of formaldehyde and hydrochloric acid on (HENNEBERG and TOLLENS), A., i, 645.
- d*-Glucose (*dextrose*), action of glyoxylic acid on (BOETTINGER), A., i, 5.  
 action of oxalic acid on (KIERMAYER), A., i, 145.  
 condensation product of, with acetone (FISCHER), A., i, 4.  
 methylene derivative (HENNEBERG and TOLLENS), A., i, 645.  
 reducing power of, on ammoniacal silver nitrate (HENDERSON), T., 145; P., 1896, 9.  
 estimation of (OPFERMANN), A., ii, 278; (CAUSSE), A., ii, 582.  
 estimation of, by Fehling's solution (HEFELMANN), A., ii, 505; (KJELDAHL), A., ii, 581.  
 extent of action of, on alkaline copper solutions (KJELDAHL), A., ii, 453.  
 estimation of, by copper potassium carbonate (OST), A., ii, 453.  
 estimation of, by cyanocupric solution (GERRARD), A., ii, 225.  
 estimation of, in jams, &c. (MAYR-HOFER), A., ii, 225.  
 estimation of, in syrups, &c. (PY), A., ii, 342.  
 estimation of, in urine (LOHNSTEIN), A., ii, 128.  
 estimation of small quantities of, in urine (BUCHNER), A., ii, 225.
- Glucose-acetone (FISCHER), A., i, 4.
- Glucose- $\alpha$ -allylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Glucose- $\alpha$ -amylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Glucose- $\alpha$ -benzylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Glucosebenzylmercaptal (LAWRENCE), A., i, 272.
- Glucose-ethylenemercaptal and action of bromine on (LAWRENCE), A., i, 272.
- Glucose- $\alpha$ -ethylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Glucosenaphthylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Glucosetrimethylenemercaptal (LAWRENCE), A., i, 272.
- Glucoside,  $C_{30}H_{48}O_{13}$ , from *Acokanthera schimperi* (FRASER and TILLIE), A., i, 386.
- Glucosides, existence of colouring matters as (PERKIN and HUMMEL), T., 1572; P., 1896, 186.  
 action of animal secretions on (FISCHER and NIEBEL), A., ii, 665.  
 detection of (FORMÁNEK), A., ii, 401.
- Glucosides. See also :—  
 Amygdalin; Cuscutin; Digitalis glucosides; Digitalin; Digitalein; Digitonin; Gaultherin; Jalapin;



- Salicin ; Scammonin ; Turpethin ; Vicin.
- Glue, action of alcoholic hydrogen chloride and sodium nitrite on (CURTIUS), A., i, 337.
- Glutamine, occurrence of, in plants (SCHULZE), A., ii, 572.
- Glutamine group, presence of, in gluten, casein, and vegetable fibrin (FLEUBENT), A., i, 112.
- Glutaric acids, asymmetric, anils and anilic acids of, general survey of (AUWERS), A., i, 641.
- substituted, relative volatility of (AUWERS and SCHLOSSER), A., i, 639.
- Glutaric anhydride, reduction products of (FICHTEE and HERBRAND), A., i, 463.
- Glutarimide, velocity of decomposition by hydrochloric acid of (MIOLATI), A., ii, 242.
- Gluten, constitution and hydrolysis of (FLEURENT), A., i, 112.
- Glutin-peptone, action of nitrous acid on (PAAL), A., i, 455.
- Glutin-peptones (PAAL), A., i, 632.
- Glyceric acid, preparation of (CAZENEUVE), A., i, 596.
- Glyceric- $\beta$ -naphthalide, benzoyl derivative of (GASSMANN), A., i, 488.
- Glycerol, electrolytic conductivity of salts dissolved in (CATTANEO), A., ii, 231.
- heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- action of chlorine on, in presence of iodine (ZAHARIA), A., i, 644.
- action of silver chloride and sodium hydroxide on (CAZENEUVE), A., i, 596.
- effect of, on germination of plants (PRIANISCHNIKOFF), ii, A., 380.
- influence of, in nutrition of plants (KINOSHITA), A., ii, 54.
- nitrate, observations on the boiling point of (DE BRUYN), A., i, 115.
- estimation of, for dynamite manufacture (LEWKOWITSCH, A., ii, 452.
- estimation of, in wine and beer (LABORDE), A., ii, 77 ; (PARTHEL), A., ii, 78.
- estimation of arsenic in (BARTON), A., ii, 499.
- Glycerose, preparation of (FONZES-DIAON), A., 459.
- Glycocholic acid, crystalline, preparation of, from ox-bile (RICHTER), A., i, 111.
- Glycocine (*aminoacetic acid*), constitution of (SAKURAI), P., 1896, 38.
- Glycocine (*aminoacetic acid*), action of sodium hypochlorite on (DE CONINCK), A., i, 282.
- condensation of, with benzaldehyde (ERLENMEYER), A., i, 305.
- Glycogen, preparation of, free from albumoses (HUIZINGA), A., i, 6.
- presence of, in lymph (DASTRE), A., ii, 119.
- formation of, in the living body (KAUFMANN and DASTRE), A., ii, 119.
- formation of, from fat in the silkworm (COUVREUR), A., ii, 317.
- as a source of muscular energy (SCHENCK), A., ii, 48 ; (SREGEN), A., ii, 487.
- action of blood-serum on (BOURQUELOT and GLEY), A., ii, 119.
- estimation of, in liver and muscle (KISTIAKOFFSKY), A., ii, 80.
- Glycogenesis in the liver (MOSSE), A., ii, 617.
- Glycol, preparation of (HAWORTH and PERKIN), T., 175 ; P., 1896, 37.
- chlorhydrin, action of sodium ethoxide and phenol on (BENTLEY, HAWORTH, and PERKIN), T., 164.
- monophenyl ether (BENTLEY, HAWORTH, and PERKIN), T., 164.
- Glycol,  $C_5H_{12}O_2$ , from action of potash on a mixture of isobutaldehyde and formaldehyde, oxidation of (JUST), A., i, 403, 404.
- Glycol,  $C_{10}H_{18}O_2$ , from trihydroxymenthane, and its diacetate (GINZBERG), A., i, 447.
- Glycollydracrylic acid, thio- (*acetic  $\beta$ -thiopropionic acid*) (LOVÉN), A., i, 412.
- Glycollic acid, compounds of, with anisidine (BOETTINGER), A., i, 411.
- sodium salt, electrolysis of (WALKER), T., 1278.
- o*- and *p*-anisidine salts of (BOETTINGER), A., i, 411.
- ethylic salt of, preparation of (WISLICENUS), A., i, 672.
- p*-phenetidine salts of (BOETTINGER), A., i, 411.
- Glycollic-*o*-anisidide (BOETTINGER), A., i, 411.
- Glycollic-*p*-anisidide (BOETTINGER), A., i, 411.
- Glycollic- $\alpha$ -naphthalide (BOETTINGER), A., i, 443.
- benzoyl derivative (GASSMANN), A., i, 487.
- Glycollic- $\beta$ -naphthalide, benzoyl derivative (GASSMANN), A., i, 487.
- Glycollic-*p*-phenetidide (BOETTINGER), A., i, 411.

- Glycols from action of potash on aldehydes, constitution of (LIEBEN), A., i, 403.
- Glycolylazoimide and the urethane (CURTIUS), A., i, 35.
- Glycolysis (NASSE and FRAMM), A., i, 398.
- Glycosuria from phloridzin, causes of (ZUNTZ), A., ii, 666.
- Glycuronic acid (MANN and TOLLENS), A., i, 417.
- Glycuronic acids, conjugated, in urine (DAIBER), A., ii, 491.
- Glyoxal, Ljubawin's method for preparing, improvements in (SPIEGEL), A., i, 346.
- action of hydroxylamine hydrochloride on (MIOLATI), A., i, 276.
- Glyoxylic acid (*glyoxalic acid*) (CURTIUS), A., i, 338.
- action of sodium ethoxide on (BOETTINGER), A., i, 411.
- hydrolysing action of, on carbohydrates (BOETTINGER), A., i, 5, 6.
- condensation of, with aminobenzoic acids (BOETTINGER), A., i, 47.
- ethylic salt, hydrazone of (VON PECHMANN), A., i, 678.
- Glyoxylic acid, chloro-, ethylic salt of, action of, on hydrocarbons (BOUVEAULT), A., i, 551.
- Gold, native, from Bohemia (STOLBA), A., ii, 429.
- native, from Servia (LOSANITSCH), A., ii, 252.
- in the Cripple Creek ores (PEARCE), A., ii, 612, 613.
- extraction of, by the cyanide process (GOYDER), A., ii, 28.
- chemistry of the cyanide process for dissolving (GOYDER), A., ii, 565.
- melting point of (HOLBORN and WIEN, LE CHATELIER), A., ii, 87.
- rate of diffusion of, through lead, bismuth, tin, and mercury (ROBERTS-AUSTEN), A., ii, 592.
- diffusion of, through solid lead and silver (ROBERTS-AUSTEN), A., ii, 593.
- Gold-alloys with silver, solubility of, in potassium cyanide solutions (MACLAURIN), T., 1276; P., 1896, 149.
- Gold chloride, action of magnesium on solutions of (VITALI), A., ii, 420.
- double sulphides of silver, lead, iron, copper, and (MACLAURIN), T., 1269; P., 1896, 149.
- Gold, estimation of, in copper and copper matte (SMITH), A., ii, 76.
- separation of, from silver by volatilisation (RICHARDS), A., ii, 674.
- Gold, separation, electrolytically, of, from cobalt, arsenic, copper, zinc, and nickel (SMITH and WALLACE), A., ii, 220.
- Gorgonia cavolinii*, presence of iodine in skeleton of (DRECHSEL), A., ii, 378.
- Gorgonic acid, iodo- (DRECHSEL), A., ii, 378.
- Gorgonin, constitution of (DRECHSEL), A., ii, 378.
- Gout, precipitation of urates in attacks of (MORDHORST), A., ii, 491.
- Grain, proteids of (RITTHAUSEN), A., i, 716.
- Gramineæ*, pentoses in (GOETZE and PFEIFFER), A., ii, 443.
- Granatal. See Dihydrogranatone.
- Granatanine, oxidation of (CIAMICIAN and SILBER), A., i, 397.
- Granatenine (CIAMICIAN and SILBER), A., i, 397.
- Granatic acid (*homotropinic acid*) and its aurochloride (CIAMICIAN and SILBER), A., i, 397.
- Granatoline (CIAMICIAN and SILBER), A., i, 397.
- Granatonine (CIAMICIAN and SILBER), A., i, 397.
- analogy of, with tropinone (WILLSTATTER), A., i, 328.
- Granite from district of Columbia, disintegration of (MERRILL), A., ii, 483.
- from Jersey, alteration of (HOLLAND and DICKSON), A., ii, 261.
- from Odenwald (CHELIUS), A., ii, 612.
- gases from (TILDEN), A., ii, 656.
- Granites, silica and quartz of (ZALESKI), A., ii, 262.
- Grapes, blue, colouring matter in (WEIGERT), A., i, 388.
- red, colouring matter in (SOSTEGNI), A., ii, 122.
- Graphite. See under Carbon.
- Graphitic schist from co. Donegal (MOSS), A., ii, 108.
- Graphitoid from Saxony (LUZI), A., ii, 366.
- Grossular from California (CLARKE), A., ii, 38.
- from Quebec (HOFFMANN), A., ii, 257.
- Guaiacol, magnetic rotatory power, &c., of (PERKIN), T., 1127, 1135, 1188, 1240.
- etheral salts of, extraction and detection of (DRAGENDORFF), A., ii, 278.
- carbonate, action of alcohol and ammonia on (CAZENEUVE), A., i, 528.

Guaiacol, carbonate, action of aniline and of *o*- and *p*-toluidine on (CAZENEUVE), A., i, 528.  
 phosphate (DUBOIS), A., i, 152.  
 succinate (DUBOIS), A., i, 152.  
 Guaiacol, tetrachloro- (BRÜGGEMANN), A., i, 356.  
*p*-nitro- [OH : OMe : NO<sub>2</sub> = 1 : 2 : 4] (MELDOLA), P., 1896, 125—127.  
 dinitro- [OH : OMe : (NO<sub>2</sub>)<sub>2</sub> = 1 : 2 : 4 : 6] (MELDOLA, WOOLCOTT, and WRAY), T., 1331.  
 nitramino- [OH : OMe : NO<sub>2</sub> : NH<sub>2</sub> = 1 : 2 : 4 : 6], and its acetyl derivatives (MELDOLA, WOOLCOTT, and WRAY), T., 1331; P., 1896, 164.  
 thio- (VOSWINKEL), A., i, 378.  
 detection of (DRAGENDORFF), A., ii, 279.  
 Guaiacolatipyrine (PATEIN and DUFAT), A., i, 188.  
 Guanidine, occurrence of, in *Vicia sativa* (SCHULZE), A., ii, 208.  
 preparation of (HOFMANN LECTURE), T., 715.  
 compounds of, with the sugars (WOLFF), A., i, 78, 79.  
 Guanidine, amino-, hydrolysis of (CURTIUS), A., i, 338.  
 nitro-, reduction of (CURTIUS), A., i, 338.  
 Guarinite from Vesuvius (REBUFFAT), A., ii, 309.  
*l*-Gulonic acid, velocity of lactone formation of (HJELT), A., i, 597.  
 Gum, wood. See Xylan.  
 Gurjun balsam, detection of (HIRSCHSONN), A., ii, 508.  
 Gypsum, artificial (GORGUEV), A., ii, 35.  
 from Utah (MOSES), A., ii, 661.  
 from Sicily, water enclosed in (SJÖGREN), A., ii, 110.

## H.

Hæmacytometer, description of a new (OLIVER), A., ii, 437.  
 Hæmatic acid, dibasic and tribasic (KÜSTER), A., i, 516.  
 Hæmatin, and its salts (KÜSTER), A., i, 516.  
 absorption spectrum of, and its compounds (GAMGEE), A., i, 713.  
 absorption of, from the alimentary canal (TIRMANN), A., ii, 487.  
 Hæmatite from Elba (ROHBER), A., ii, 431.  
 artificial (MÜLLER), A., ii, 254; (ARC-TOWSKI), A., ii, 307.

Hæmatite, magnetic behaviour of (ABT), A., ii, 656.  
*Hæmatomma coccineum*, occurrence of atranoric and hæmatommic acids and allied compounds in (ZOFF), A., i, 103.  
*ventosum*, absence of atranoric acid in (ZOFF), A., i, 103.  
 Hæmatommic acid, preparation and properties of (ZOFF), A., i, 104.  
 Hæmatommic acid, preparation and properties of (ZOFF), A., i, 103.  
 Hæmatoporphyrin (SCHUNCK and MARCHLEWSKI), A., i, 496, 574.  
 identity of, with turacoporphyrin (GAMGEE), A., i, 714.  
 absorption bands of (TSCHIRCH), A., i, 624.  
 absorption spectra of acid and alkaline solutions of (GAMGEE), A., i, 714.  
 sources of, in urine (STOKVIS), A., ii, 537.  
 Hæmatoporphyrinuria caused by doses of sulphonal (GARROD and HOPKINS), A., ii, 264.  
 Hæmatoxylin, behaviour of, towards fused potash (HERZIG), A., i, 379.  
 trimethylic ether. See Trimethyl-hæmatoxylin.  
 Hæmin (KÜSTER), A., i, 516.  
 hydrochloride, preparation and composition of (CLOETTA), A., i, 660.  
 Hæmochromogen, absorption spectrum of (GAMGEE), A., i, 713.  
 Hæmogallol, absorption of, from the alimentary canal (GEORGENBURGER), A., ii, 485; (TIRMANN), A., ii, 487.  
 Hæmoglobin, formation of, from inorganic iron (KUNKEL), A., ii, 47.  
 action of acetylene on (BROCINER), A., ii, 264.  
 absorption of, in alimentary canal (GEORGENBURGER), A., ii, 485; (TIRMANN), A., ii, 487.  
 estimation of, by a colorimeter (ZANGEMEISTER), A., ii, 404.  
 Methæmoglobin, absorption spectrum of (GAMGEE), A., i, 713.  
 in blood and urine from chlorate poisoning (BRANDENBURG), A., ii, 491.  
 Carboxylhæmoglobin, spectroscopic examination of (GAMGEE), A., i, 713.  
 dissociation constant of (HÜFNER), A., ii, 485.  
 Hæmoglobinometer, description of a new (OLIVER), A., ii, 437.  
 Hæmol, absorption of, in the alimentary canal (GEORGENBURGER), A., ii, 485.  
 Hainite from Bohemia (BLUMRICH), A., ii, 314.

Halogens, free, poisonous effect of, on  
 algæ and infusoria (BOKORNY), A.,  
 ii, 669.  
 Halogen compounds, poisonous effect of,  
 on algæ and infusoria (BOKORNY), A.,  
 ii, 669.  
 Haricots. See Agricultural chemistry.  
 (Appendix.)  
 Harmaline, constitution of (HERZIG and  
 MEYER), A., i, 68.  
 Harmine, constitution of (HERZIG and  
 MEYER), A., i, 68.  
 Harmotome from Ontario (HOFFMANN),  
 A., ii, 190.  
 dehydration of; absorption of am-  
 monia by (FRIEDEL), A., ii, 431.  
 Hastingsite from Ontario (ADAMS and  
 HARRINGTON), A., ii, 374.  
 Hautefeuille from Balme, Norway  
 (MICHEL), A., ii, 112.  
 Hawthorn blossom, colouring matter of  
 white (PERKIN and HUMMEL), T.,  
 1570; P., 1896, 186.  
 Hay. See Agricultural chemistry. (Ap-  
 pendix.)  
 Heart, embryonic, physiology of the  
 (PICKERING), A., ii, 663.  
 action of drugs on (PICKERING),  
 A., ii, 46.  
 frog's, nutrition of (WHITE), A., ii,  
 437.  
 HEAT:—  
 Absorption of radiant heat by liquids  
 (ZSIGMONDY), A., ii, 464.  
 Boiling point or points, apparatus for  
 the accurate determination of  
 (KAHLBAUM), A., ii, 233.  
 apparatus for determining (PER-  
 KIN), T., 1041; P., 1896, 122.  
 in a high vacuum (KRAFFT and  
 WEILANDT), A., ii, 464.  
 and the genesis of the elements  
 (BLANSHARD), A., ii, 233.  
 mathematical treatment of eleva-  
 tion of (VAN LAAR), A., ii, 154.  
 determination of molecular weights  
 by the elevation of (BECKMANN,  
 FUCHS, and GERNHARDT), A., ii,  
 237.  
 of organic substances (PERKIN), T.,  
 1247.  
 in the cathode light vacuum  
 (KRAFFT and WEILANDT), A.,  
 ii, 635.  
 of aqueous solutions of arsenic tri-  
 oxide (BILZ), A., ii, 152.  
 of a solution of arsenic trioxide in  
 nitrobenzene (BILZ), A., ii, 152.  
 of solutions of  $\alpha$ -nitrocamphor in  
 alcohol (PESCETTA), A., ii, 346.  
 of carbon (VIOLETTE), A., ii, 8.

## HEAT:—

Boiling point or points of solutions  
 of hexadecylamine hydrochloride  
 (KRAFFT and STRUTZ), A., ii,  
 467.  
 of hydrogen (OLSZEWSKI), A., ii, 9.  
 of solutions in methylic and  
 ethylic alcohol (WOELFER), A.,  
 ii, 237.  
 of alcoholic solutions of sodium  
 oleate (KRAFFT and STRUTZ),  
 A., ii, 467.  
 of zinc (LE CHATELIER), A., ii, 87.  
 Heat of bromination of oils, deter-  
 mination of (WILEY), A., ii, 543.  
 Calorie, uncertainty in the value of  
 the (GRIFFITHS), A., ii, 147.  
 Calorimeter, mixing, improved  
 (WATERMAN), A., ii, 146.  
 modification of Regnault's thermo-  
 (MASSOL and GUILLOT), A., ii, 8.  
 Heat of combustion of fuels, deter-  
 mination of the (HEMPER), A., ii,  
 556.  
 See also Heat, Thermochemical data.  
 Conductivity of vapours for heat and  
 ion velocity, connection between  
 (BREDIG), A., ii, 348.  
 Critical temperature, disappearance of  
 the meniscus at the (ZAMBIASI),  
 A., ii, 234; (ALTSCHUL), A., ii,  
 407.  
 specific volumes of the liquid and  
 gaseous phases at the  
 (ZAMBIASI), A., ii, 234.  
 of mixtures (KUENEN), A., ii, 10.  
 of ethylic alcohol (BATELLI), A.,  
 ii, 150.  
 of hydrogen (OLSZEWSKI), A., ii, 9.  
 Heat developed by alcoholic fer-  
 mentation (BOUFFARD), A., ii, 12.  
 by the nitration of aromatic sub-  
 stances (MATIGNON and  
 DELIGNY), A., ii, 88.  
 Heat of dilution and freezing point,  
 relation between (ROLOFF), A.,  
 ii, 291.  
 Dissociation pressure of hydrated  
 barium chloride (MÜLLER-  
 ERZBACH), A., ii, 295.  
 of hydrated copper sulphate  
 (MÜLLER-ERZBACH), A., ii, 295.  
 of hydrated disodium hydrogen  
 phosphate (MÜLLER-ERZBACH),  
 A., ii, 295.  
 of hydrated zinc sulphate (MÜLLER-  
 ERZBACH), A., ii, 295.  
 Heat of electrolytic dissociation of  
 acetic acid (KORTRIGHT), A.,  
 ii, 463.  
 of bromacetic acid (KORTRIGHT),  
 A., ii, 463.

## HEAT:—

- Heat of electrolytic dissociation of chloroacetic acid (KORTRIGHT), A., ii, 463.
- of dichloroacetic acid (KORTRIGHT), A., ii, 463.
- of benzoic acid (KORTRIGHT), A., ii, 463.
- of butyric acid (KORTRIGHT), A., ii, 463.
- of citraconic acid (KORTRIGHT), A., ii, 463.
- of fumaric acid (KORTRIGHT), A., ii, 463.
- of maleic acid (KORTRIGHT), A., ii, 463.
- of malonic acid (KORTRIGHT), A., ii, 463.
- of mesaconic acid (KORTRIGHT), A., ii, 463.
- of phthalic acid (KORTRIGHT), A., ii, 463.
- of isophthalic acid (KORTRIGHT), A., ii, 463.
- of succinic acid (KORTRIGHT), A., ii, 463.
- Expansion coefficient of argon and helium (KUENEN and RANDALL), A., ii, 598.
- of liquids (TRAUBE), A., ii, 235.
- of salt solutions (DE LANNON), A., ii, 233.

Heat of formation. See Heat, thermochemical data.

- Freezing point or points, abnormal depressions of the (GARELLI), A., ii, 292.
- connection between constitution and abnormal depression of the (GARELLI), A., ii, 157.
- of solutions, apparent and true (WILDERMANN), A., ii, 290.
- depression, mathematical treatment of (VAN LAAR), A., ii, 154.
- in pure ice from dilute solutions (ZOPPELLARI), A., ii, 514.
- depression of, of milk and serum (WINTER), A., ii, 199.
- formation of solid solutions causing abnormal depressions of the (GARELLI), A., ii, 469.
- molecular depression in aqueous solutions of the (WILDERMANN), A., ii, 351.
- of concentrated solutions, method of determining the (ROLOFF), A., ii, 291.
- of dilute solutions, determination of (NERNST and ABEGG), A., ii, 292, 352; (LOOMIS), A., ii, 353; (WILDERMANN; ABEGG), A., ii, 587; (PONSOT), A., ii, 636.

## HEAT:—

- Freezing point or points of solutions of substances in solvents of similar constitution (GARELLI), A., ii, 292.
- of solutions of organic compounds in bromoform (AMPOLA and MANUELLI), A., ii, 238.
- of solutions of salts and acids in formic acid (ZANNINOVICH-TESSARIN), A., ii, 352.
- of benzene solutions, influence of pressure on (COLSON), A., ii, 157.
- of aqueous solutions of acetic acid (PONSOT), A., ii, 412.
- of concentrated aqueous solutions of acetic acid (ROLOFF), A., ii, 291.
- of solutions of the acetates of weak bases in benzene (ZOPPELLARI), A., ii, 515.
- of dilute solutions of dichloroacetic acid (WILDERMANN), A., ii, 351.
- of dilute solutions of trichloroacetic acid (WILDERMANN), A., ii, 351.
- of dilute solutions of ammonium chloride (LOOMIS), A., ii, 352.
- of dilute solutions of ammonium nitrate (LOOMIS), A., ii, 352.
- of aqueous solutions of barium chloride (PONSOT), A., ii, 412.
- of dilute solutions of barium chloride (LOOMIS), A., ii, 352.
- of dilute solutions of *o*-nitrobenzoic acid (WILDERMANN), A., ii, 351.
- of aqueous solutions of calcium chloride (PONSOT), A., ii, 412.
- of solutions of  $\alpha$ -nitrocamphor in benzene (PESCIETTA), A., ii, 346.
- of dilute solutions of carbamide (ABEGG), A., ii, 588.
- of dilute solutions of ethylic alcohol (JONES), A., ii, 155; (ABEGG), A., ii, 588.
- of solutions of active ethylic diacetyl glycerate in acetic acid and in benzene (FRANKLAND and PICKARD), T., 134, 135; P., 1896, 11.
- of dilute solutions of *d*-glucose (ABEGG), A., ii, 588.
- of concentrated aqueous solutions of hydrochloric acid (ROLOFF), A., ii, 291.
- of dilute solutions of hydrochloric acid (LOOMIS), A., ii, 352.
- of aqueous solutions of lead nitrate (PONSOT), A., ii, 412.

## HEAT:—

- Freezing point or points of dilute solutions of magnesium chloride (LOOMIS), A., ii, 352.
- of solutions of active and inactive methylic dibenzoylglycerates in acetic acid, benzene, nitro-benzene, and ethylenic dibromide (FRANKLAND and PICKARD), T., 125, 127, 129, 131, 132; P., 1896, 11.
- of aqueous solutions of oxalic acid (PONSOT), A., ii, 412.
- of solutions of phenols in corresponding and other hydrocarbons (PATERNO), A., ii, 156.
- of solutions of phenols in naphthalene (AUWERS), A., ii, 156.
- of solutions of substituted phenols in naphthalene (AUWERS and INNES), A., ii, 293.
- of dilute solutions of phosphoric acid (LOOMIS), A., ii, 352.
- of aqueous solutions of potassium bromide (PONSOT), A., ii, 412.
- of dilute solutions of potassium carbonate (LOOMIS), A., ii, 352.
- of aqueous solutions of potassium chloride (PONSOT), A., ii, 412.
- of concentrated aqueous solutions of potassium chloride (ROLOFF), A., ii, 291.
- of dilute solutions of potassium chloride (WILDERMANN), A., ii, 351; (LOOMIS), A., ii, 352; (ABEGG), A., ii, 588.
- of dilute solutions of potassium nitrate (LOOMIS), A., ii, 352.
- of aqueous solutions of potassium sulphate (PONSOT), A., ii, 412.
- of dilute solutions of potassium sulphate (LOOMIS), A., ii, 352; (ABEGG), A., ii, 588.
- of dilute solutions of resorcinol (WILDERMANN), A., ii, 351.
- of dilute solutions of sodium carbonate (LOOMIS), A., ii, 352.
- of aqueous solutions of sodium chloride (PONSOT), A., ii, 412.
- of dilute solutions of sodium nitrate (LOOMIS), A., ii, 352; (ABEGG), A., ii, 588.
- of dilute solutions of sodium sulphate (LOOMIS), A., ii, 352.
- of aqueous solutions of cane sugar (PONSOT), A., ii, 412.
- of dilute solutions of cane sugar (JONES), A., ii, 155; (WILDERMANN), A., ii, 351, 588.

## HEAT:—

- Freezing point or points of aqueous solutions of sulphuric acid (PONSOT), A., ii, 412.
- of dilute solutions of sulphuric acid (WILDERMANN), A., ii, 351.
- of dilute solutions of tartaric acid (ABEGG), A., ii, 588.
- Heat of ionisation of metals (JAHN), A., ii, 230, 231.
- Latent heat or heats of evaporation, method of comparing (MARSHALL and RAMSAY), A., ii, 349.
- and molecular complexity, connection of (LINEBARGER), A., ii, 9.
- relation of vapour density, boiling point, and (DUDLEY), A., ii, 289.
- of elements (SUTHERLAND), A., ii, 7.
- of paracetaldehyde (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of acetic acid (MARSHALL and RAMSAY), A., ii, 349.
- of acetone (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of *isoamylic* acetate (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of *isoamylic* alcohol (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of tertiary amylic alcohol (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of benzene (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237; (GRIFFITHS and MARSHALL), A., ii, 349.
- of camphor (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of carbon bisulphide (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of chloroform (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of cymene (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of decane (LUGININ), A., ii, 146.
- of diethyl ketone (LUGININ), A., ii, 146.
- of dipropyl ketone (LUGININ), A., ii, 146.
- of nitroethane (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of ethylenic dibromide (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.

## HEAT:—

- Latent heat or heats of ethylenic dichloride (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of ethylic acetate (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237; (MARSHALL and RAMSAY), A., ii, 349.
- of ethylic alcohol (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237; (MARSHALL and RAMSAY), A., ii, 349.
- of ethylic bromide (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of ethylic carbonate (LOUGUININE), A., ii, 146.
- of ethylic ether (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of ethylic formate (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237; (MARSHALL and RAMSAY), A., ii, 349.
- of ethylic iodide (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of ethylic propionate (MARSHALL and RAMSAY), A., ii, 349.
- of formic acid (MARSHALL), A., ii, 589.
- of glycerol (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of menthol (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of menthone (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of methyl butyl ketone (LUGININ), A., ii, 146.
- of methyl ethyl ketone (LUGININ), A., ii, 146.
- of methyl propyl ketone (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of methyl isopropyl ketone (LUGININ), A., ii, 146.
- of methylal (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of methylic acetate (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237; (MARSHALL and RAMSAY), A., ii, 349.
- of methylic alcohol (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of methylic butyrate (MARSHALL and RAMSAY), A., ii, 349.
- of methylic isobutyrate (MARSHALL and RAMSAY), A., ii, 349.
- of methylic carbonate (LUGININ), A., ii, 146.

## HEAT:—

- Latent heat or heats of methylic formate (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237; (MARSHALL and RAMSAY), A., ii, 349.
- of methylic iodide (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of methylic propionate (MARSHALL and RAMSAY), A., ii, 349.
- of normal octane (LUGININ), A., ii, 146.
- of propionitrile (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of propylic acetate (MARSHALL and RAMSAY), A., ii, 349.
- of propylic alcohol (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of isopropylic alcohol (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of propylic formate (MARSHALL and RAMSAY), A., ii, 349.
- of toluene (MARSHALL and RAMSAY), A., ii, 349.
- of water (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- of *m*-xylene (MARSHALL and RAMSAY), A., ii, 349.
- Melting point or points of some metals (LE CHATELIER), A., ii, 87.
- of alloys, influence of isomorphism on the (GAUTIER), A., ii, 646.
- of optical isomerides (WALDEN), A., ii, 553.
- of silver, gold, copper, nickel, palladium, and platinum (HOLBORN and WIEN), A., ii, 87.
- of hydrated sodium sulphate, depression by foreign substances of the (LOWENHERZ), A., ii, 149.
- physical changes of metallic sulphides at temperatures below their (SPRING), A., ii, 290.
- Heat of bromination of oils, determination of (WILEY), A., ii, 513.
- Heat of solution and dilution, mathematical treatment of (VAN LAAR), A., ii, 154.
- of acenaphthene in methylic, ethylic, and propylic alcohols, chloroform, and toluene (SPEYERS), A., ii, 411.
- of solution and dilution of acetamide in water and ethylic alcohol (SPEYERS), A., ii, 411.

## HEAT:—

- Heat of solution and dilution of acetanilide in methylic and ethylic alcohols and chloroform (SPEYERS), A., ii, 411.
- of benzamide in ethylic alcohol (SPEYERS), A., ii, 411.
- of chloral hydrate in water, ethylic alcohol, chloroform, and toluene (SPEYERS), A., ii, 411.
- of mannitol in water (SPEYERS), A., ii, 411.
- of naphthalene in methylic, ethylic, and propylic alcohols, chloroform, and toluene (SPEYERS), A., ii, 411.
- of phenanthrene in ethylic alcohol and toluene (SPEYERS), A., ii, 411.
- of resorcinol in water and ethylic alcohol (SPEYERS), A., ii, 411.
- of sodium chloride (STACKELBERG), A., ii, 589.
- of succinimide in water and ethylic alcohol (SPEYERS), A., ii, 411.
- curve of sulphuric acid, self-recorded breaks in the (PICKERING), A., ii, 155.
- of cane sugar in water (SPEYERS), A., ii, 411.
- of *p*-toluidine in ethylic alcohol, chloroform, and toluene (SPEYERS), A., ii, 411.
- of urea in water and ethylic alcohol (SPEYERS), A., ii, 411.
- of urethane in water, methylic, ethylic, and propylic alcohols, chloroform, and toluene (SPEYERS), A., ii, 411.
- Specific heat of solutions (TAMMANN), A., ii, 289.
- of acetic acid (MASSOL and GUILLOT), A., ii, 8.
- of air (AMAGAT), A., ii, 349.
- of alloys of antimony and iron (LABORDE), A., ii, 652.
- of copper (BARTOLI and STRACCIATI), A., ii, 145.
- of formic acid (MASSOL and GUILLOT), A., ii, 8.
- of graphite (VIOLE), A., ii, 8.
- of lead (BARTOLI and STRACCIATI), A., ii, 145.
- of mercury (BARTOLI and STRACCIATI), A., ii, 145.
- of platinum (BARTOLI and STRACCIATI), A., ii, 145.
- of silver (BARTOLI and STRACCIATI), A., ii, 145.
- of tin (BARTOLI and STRACCIATI), A., ii, 145.

## HEAT:—

- Specific heat of water at different temperatures (DIETERICI), A., ii, 232.
- Temperature of certain flames (HARTLEY), T., 844; P., 1896, 98.
- of hydrocarbon flames (LEWIS), A., ii, 141.
- influence of, on the rate of chemical change (HARCOURT and ESSON), A., ii, 238.
- influence of, on the velocity of intramolecular changes of oximes of (LEY), A., ii, 243.
- of maximum density of salt solutions (DE LANNOY), A., ii, 233.
- Temperatures, measurement of high (HOLBORN and WIEN), A., ii, 87.
- low (DEWAR), P., 1895, 221.
- production of very low (LINDE), A., ii, 232.
- Thermochemical data of acetal and chloroacetal (RIVALS), A., ii, 588.
- of *p*-nitroacetanilide (MATIGNON and DELIGNY), A., ii, 88.
- of acetylacetone (GUINCHANT), A., ii, 12.
- of ammonium mercuric bromocyanide (VARET), A., ii, 88.
- of ammonium mercuric iodocyanide (VARET), A., ii, 148.
- of barium mercuric bromocyanide (VARET), A., ii, 88.
- of barium mercuric iodocyanide (VARET), A., ii, 148.
- of barium oxybromide (TASSILLY), A., ii, 465.
- of barium oxychloride (TASSILLY), A., ii, 465.
- of nitrobenzaldehyde (MATIGNON and DELIGNY), A., ii, 88.
- of *o*-chlorobenzoic acid (RIVALS), A., ii, 409.
- of *o*-chlorobenzoic chloride (RIVALS), A., ii, 409.
- of *m*- and *p*-*o*-nitrobenzoic acids (MATIGNON and DELIGNY), A., ii, 88.
- of benzoic cyanide (GUINCHANT), A., ii, 465.
- of benzoylalanine (STOHMANN and SCHMIDT), A., ii, 466.
- of benzoylsarcosine (STOHMANN and SCHMIDT), A., ii, 466.
- of cadmium mercuric bromocyanide (VARET), A., ii, 88.
- of cadmium mercuric iodocyanide (VARET), A., ii, 148.
- of hydrated calcium iodide (TASSILLY), A., ii, 350.



HEAT:—

- Thermochemical data of calcium mercuric bromocyanide (VARET), A., ii, 88.
- of calcium mercuric iodiccyanide (VARET), A., ii, 148.
- of calcium oxybromide (TASSILLY), A., ii, 465.
- of nitrocarbamide (TANATAR), A., ii, 466.
- of cuprous cyanide (VARET), A., ii, 149.
- of cyanacetamide (GUINCHANT), A., ii, 465.
- of cyanacetic acid (GUINCHANT), A., ii, 465.
- of cyanacetophenone (GUINCHANT), A., ii, 465.
- of cyanuric acid (LEMOULT), A., ii, 11.
- of the ethylic salts of the chloracetic acids (RIVALS), A., ii, 588.
- of ethylic cyanacetate (GUINCHANT), A., ii, 12.
- of ethylic cyanacetate (GUINCHANT), A., ii, 12.
- of ethylic diacetate (GUINCHANT), A., ii, 12.
- of hippuric acid (STOHMANN and SCHMIDT), A., ii, 466.
- of hydrogen selenide (PELABON), A., ii, 96.
- of lithium cyanide (VARET), A., ii, 149.
- of lithium mercuric bromocyanide (VARET), A., ii, 88.
- of lithium mercuric iodiccyanide (VARET), A., ii, 148.
- of magnesium cyanide (VARET), A., ii, 149.
- of magnesium mercuric bromocyanide (VARET), A., ii, 88.
- of magnesium mercuric iodiccyanide (VARET), A., ii, 148.
- of manganese carbide (LE CHATELIER), A., ii, 350.
- of manganese carbonate (LE CHATELIER), A., ii, 350.
- of manganese monoxide (LE CHATELIER), A., ii, 350.
- of manganese peroxide (LE CHATELIER), A., ii, 350.
- of manganese silicate (LE CHATELIER), A., ii, 350.
- of methylic acetoacetate (GUINCHANT), A., ii, 12.
- of methylic acetylmalonate (GUINCHANT), A., ii, 12.
- of methylic cyanacetate (GUINCHANT), A., ii, 12.
- of methylic cyanacetate (GUINCHANT), A., ii, 12.

HEAT:—

- Thermochemical data of methylic malonate (GUINCHANT), A., ii, 12.
- of nickel cyanide (VARET), A., ii, 513.
- of some nickelocyanides (VARET), A., ii, 513.
- of phenylacetic acid (STOHMANN and SCHMIDT), A., ii, 466.
- of phenacetic acid (STOHMANN and SCHMIDT), A., ii, 466.
- of *o*-nitrophenol (MATIGNON and DELIGNY), A., ii, 88.
- of *p*-nitrophenol (MATIGNON and DELIGNY), A., ii, 88.
- of potassium *o*-chlorobenzoate (RIVALS), A., ii, 409.
- of sodium and potassium cyanurates (LEMOULT), A., ii, 11.
- of sodium mercuric bromocyanide (VARET), A., ii, 88.
- of sodium mercuric iodiccyanide (VARET), A., ii, 148.
- of strontium mercuric bromocyanide (VARET), A., ii, 88.
- of hydrated strontium iodide (TASSILLY), A., ii, 350.
- of strontium mercuric iodiccyanide (VARET), A., ii, 148.
- of strontium oxybromide (TASSILLY), A., ii, 465.
- of *o*-toluoylalanine (STOHMANN and SCHMIDT), A., ii, 466.
- of *p*-toluoylalanine (STOHMANN and SCHMIDT), A., ii, 466.
- of *o*-, *m*-, and *p*-toluric acids (STOHMANN and SCHMIDT), A., ii, 466.
- of triethylic phosphate (CAVALIER), A., ii, 590.
- of zinc mercuric bromocyanide (VARET), A., ii, 88.
- relating to the combination of benzene and azobenzene in the liquid and solid states (PICKERING), A., ii, 148.
- relating to the combination of dinitrobenzenes and naphthalene in the liquid and solid states (PICKERING), A., ii, 148.
- relating to the replacement of mercury by potassium (VARET), A., ii, 649.
- relating to the combination of pinacone and water in the liquid and solid states (PICKERING), A., ii, 148.
- relating to the combination of sodium hydroxide and water in the liquid and solid states (PICKERING), A., ii, 148.

## HEAT:—

- Thermochemical data relating to the combination of stannic bromide and water in the liquid and solid states (PICKERING), A., ii, 148.  
relating to the combination of sulphuric acid and water in the liquid and solid states (PICKERING), A., ii, 148.  
of uranium compounds (ALOY), A., ii, 590.
- Thermochemistry, fundamental atomic laws of (SUTHERLAND), A., ii, 7.
- Thermo-couple, Le Chatelier's, comparison of the air thermometer with (HOLBORN and WIEN), A., ii, 87.
- Thermodynamics, applications to chemistry of (FITZGERALD), T., 895; P., 1896, 25.  
of galvanic polarisation (LEBLANC), A., ii, 4.
- Thermoelectromotive force of metals and alloys (DEWAR and FLEMING), A., ii, 4.
- Thermometry, advantages of the use of argon in (QUINAN), A., ii, 407.
- Transition point of hydrated sodium hydrogen phosphate (BAUR), A., ii, 146.
- Unit of heat, proposal of a standard (GRIFFITHS), A., ii, 147.
- Vapour pressures at high temperatures, apparatus for determining (WALTER), A., ii, 297.  
of mixtures of volatile liquids (LINEBARGER), A., ii, 408.  
of concentrated solutions of calcium nitrate (WADDELL), A., ii, 151.  
of ethylic alcohol (BATELLI), A., ii, 150.  
of concentrated solutions of lithium nitrate (WADDELL), A., ii, 151.  
of liquid oxygen (ESTREICHER), A., ii, 150.
- Helianthotannic acid in *Helianthus* (OSBORNE and CAMPBELL), A., i, 716.
- Helianthus*, edestin in (OSBORNE and CAMPBELL), A., i, 716.  
*tuberosus*, arginine in (SCHULZE), A., ii, 383.
- Helium, sources of (WILDE), A., ii, 165.  
in minerals (ERDMANN), A., ii, 570  
yield from different minerals, and properties of (RAMSAY), A., ii, 596.  
from uraninite (LOCKYER), A., ii, 596.  
absence of, in certain mineral waters (KELLAS and RAMSAY), A., ii, 655.  
presence of, in the gas from the Bath springs and in the atmosphere (RAYLEIGH), A., ii, 599.
- Helium, presence of, in air and water (KAYSER), A., ii, 19.  
in a natural water (MOUREU), A., ii, 298.  
in mineral waters (BOUCHARD), A., ii, 117.  
in sulphuretted waters (TROOST and OUVARD; BOUCHARD), A., ii, 298.  
&c., state of, in minerals (TILDEN), A., ii, 655.  
density and atomic weight of (LANGLET), A., ii, 99.  
probable atomic weights of constituents of (RUNGE and PASCHEN), A., ii, 2.  
position of, in the periodic system (DEELEY; PREYER), A., ii, 418.  
homogeneity of (RAMSAY and COLLIE), A., ii, 645.  
classification of (WILDE), A., ii, 165.  
chemical analogies of (HILL), A., ii, 418.  
refractivity of (RAYLEIGH), A., ii, 598.  
spectrum of (CROOKES), A., ii, 1.  
spectrum of gas from cleveite (RUNGE and PASCHEN), A., ii, 1.  
wave-length of the line  $D_3$  in the solar spectrum (PALMER), A., ii, 405.  
behaviour of, when submitted to the electric discharge (COLLIE and RAMSAY), A., ii, 634.  
expansion of, by heat (KUENEN and RANDALL), A., ii, 598.  
viscosity of (RAYLEIGH), A., ii, 599.  
absorbed by cleveite, iron, and palladium (TILDEN), A., ii, 656.  
combination of, with magnesium (TROOST and OUVARD), A., ii, 99.
- Helmholtz memorial lecture (FITZGERALD), T., 885; P., 1896, 25.  
discussion on (HARCOURT, LISTER, FRANKLAND, RAYLEIGH, ROSCOE, ARMSTRONG, POYNTING), P., 1896, 26.
- "Helvetia-green" (PRUD'HOMME), A., i, 485.
- Hemicelluloses, fermentation of (GRÜSS), A., ii, 670.
- Hemimellitene (1 : 2 : 3-trimethylbenzene), synthesis of (LUCAS), A., i, 418.
- Hemimellitic acid (1 : 2 : 3-benzenetricarboxylic acid) and its salts (GRAEBE and LEONHARDT), A., i, 437.  
from methylpurpuroxanthin (SCHUNCK and MARCHLEWSKI), T., 70; P., 1895, 203.  
etherification of (MEYER), A., i, 547.
- Hemimellitic anhydride (GRAEBE and LEONHARDT), A., i, 437.

Hemimellitimid and its salts (GRAEBE and LEONHARDT), A., i, 437.  
 Hemimorphite from Silesia (TRAUBE), A., ii, 255.  
 $\alpha$ -Hemipinamic acid, silver salt (HOOGEWERFF and VAN DORP), A., i, 315.  
 $\beta$ -Hemipinamic acid, silver salt (HOOGEWERFF and VAN DORP), A., i, 315.  
 Hemp, edestin, a proteid in (OSBORNE and CAMPBELL), A., i, 716.  
 Indian, charas, the resin of (WOOD, SPIVEY, and EASTERFIELD), T., 539; P., 1896, 76.  
 Hempseed oil, oxidisability of (BISHOP), A., ii, 399.  
 Hendecenoic acid (*undecylenic acid*) dibromide, action of alcoholic potash on (KRAFFT), A., i, 665.  
 bromo-, action of potassium carbonate on, in alcoholic solution (KRAFFT), A., i, 665.  
 HENDECINOIC ACIDS:—  
 Hendecinoic acid (*undecolic acid*) and oxidation (KRAFFT), A., i, 665.  
 Dehydrohendecenoic acid (*dehydro-undecylenic acid*) and its oxidation (KRAFFT), A., i, 665.  
 action of potash on (KRAFFT), A., i, 665.  
 ethylic salt (KRAFFT), A., i, 666.  
 HENDECINYLIC ALCOHOL:—Methylallylhexenylcarbinol (*homolinalol*) from methylheptenone (BAEBER and BOUVEAULT), A., i, 491.  
 and its acetate (TIEMANN and SCHMIDT), A., i, 271.  
 action of sulphuric acid on (TIEMANN and SCHMIDT), A., i, 271.  
 oxidation of (TIEMANN and SCHMIDT), A., i, 271, 272.  
*iso*-Hendecylamine (*isoundecylamine*), action of carbon bisulphide on (PONZIO), A., i, 636.  
 Heptanaphthene. See *Methylcyclohexane*.  
 HEPTANES:—  
 Heptane, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1172, 1236.  
 $\delta\delta$ -dinitro- (BORN), A., i, 199.  
 $\delta$ -nitro- $\delta$ -nitroso- (BORN), A., i, 199.  
 Diisopropylmethane,  $\gamma\gamma$ -dinitro- (BORN), A., i, 199.  
 $\gamma$ -nitro- $\gamma$ -nitroso- (BORN), A., i, 199.  
 Methyl- $\alpha$ -ethylpropylmethane,  $\beta\beta$ -dinitro- (BORN), A., i, 199.  
 Heptane-3 : 3 : 5 : 5-tetracarboxylic acid, ethylic salt, action of heat and of sulphuric acid on (AUWERS and SINGHOFF), A., i, 642.  
*cyclo*-Heptenamine from pulegone,

carbamide, and semicarbazone (WALLACH), A., i, 310.  
*iso*-Heptenolactone (FITTIG and WOLFF), A., i, 136.  
 HEPTINENES:—  
 Heptinene (*ænanthylidene*), action of water on (DESGREZ), A., i, 2.  
 Methylbutylacetylene, action of water on (DESGREZ), A., i, 2.  
 Heptoaldehyde (*ænanthaldehyde*), action of nitric acid on (PONZIO), A., i, 461.  
 Heptoic acid (*ænanthoic acid*) (PONZIO), A., i, 461.  
 magnetic rotatory power and relative density of (PERKIN), T., 1063, 1172, 1236.  
 ethylic salt, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1172, 1236.  
 phenylic salt, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1075, 1076, 1078, 1180, 1239.  
 methylamide, action of nitric acid on (FRANCHIMONT), A., i, 602.  
*iso*-Heptoic acid, bromo-, action of water on (FITTIG and WOLFF), A., i, 136.  
 $\beta\gamma$ -dibromo- (FITTIG and WOLFF), A., i, 136.  
 HEPTOLACTONE:—Ethylvalerolactone (HJELT), A., i, 598.  
 Heptylamine, action of carbon bisulphide on (PONZIO), A., i, 636.  
 HEPTYLENE:—Dimethylisopropylethylene (REFORMATSKY), A., i, 127.  
 HEPTYLIC ALCOHOL:—Triethylcarbinol, action of bromine on (PATIEFF), A., i, 402.  
 Heptylideneacetoacetic acid, ethylic salt of (KNOEVENAGEL), A., i, 211.  
 Heptylideneanthranilic acid (NIEMEN-TOWSKI and ORZECZOWSKI), A., i, 188.  
 Heptylidenebisacetonedicarboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 212.  
 Heptylthiocarbimide and its behaviour with hydrogen sulphide (PONZIO), A., i, 636.  
 Hercynite from Valtellina (LINCK), A., ii, 183.  
 Herring meal. See Agricultural chemistry.  
 Hessonite. See Essonite.  
 Heteroproteose. See Proteose.  
 Heteroxanthine. See Xanthine.  
 Heulandite from Thuringia (FROMME), A., ii, 370.  
 action of acid on (RINNE), A., ii, 368.  
 absorption of ammonia by dehydrated (FRIEDEL), A., ii, 481.

- Hexabenzoylmyricetin, preparation and properties of (PERKIN and HUMMEL), T., 1291; P., 1896, 145.
- Hexacetylmyricetin, preparation and properties of (PERKIN and HUMMEL), T., 1291; P., 1896, 145.
- Hexadecylamine hydrochloride, boiling points of solutions of (KRAFFT and STRUTZ), A., ii, 467.
- palmitate, colloidal nature of solutions of (KRAFFT and STRUTZ), A., ii, 468.
- Hexadecylene, monobromo-, action of alcoholic potash on (KRAFFT), A., i, 665.
- HEXADECYLINENES:—
- Methyltridecylacetylene, from brom-hexadecylene (KRAFFT), A., i, 666.
- Tetradecylacetylene, from brom-hexadecylene (KRAFFT), A., i, 665.
- cyclo*-Hexadiene (*dihydrotoluene*) (KNOEVENAGEL), A., i, 288.
- cyclo*-Hexadiene-1 : 2-dicarboxylic acid (*dihydrophthalic acid*) (HOWE), A., i, 481.
- Hexahydroanthranilic acid : ethylic salt and amide of (EINHORN and BULL), A., i, 472.
- Hexahydrocinchomeronic acid and its salts (KOENIGS and WOLFF), A., i, 698.
- hydrochloride of (KOENIGS), A., i, 252.
- Hexahydro-*n*-cumene. See Propyl-*cyclohexane*.
- Hexahydro- $\psi$ -cumene. See 1 : 2 : 5-Trimethyl-*cyclohexane*.
- Hexahydrocymene. See 1 : 4-Methyl-isopropyl-*cyclohexane*.
- Hexahydrolepidinic acid, hydrochloride of (KOENIGS), A., i, 252.
- Hexahydrophenylaminoacetic acid, hydrochloride of (EINHORN), A., i, 552.
- Hexahydropyridine-3 : 5-dicarboxylic acid. See Hexahydrocinchomeronic acid.
- Hexahydroquinolinic acids and their hydrochlorides, methylic and ethylic salts, and nitroso-compounds (BESTHORN), A., i, 252.
- Hexahydrotoluene. See Methyl-*cyclohexane*.
- Hexahydro-*p*-toluic acid. See 1 : 4-Methyl-*cyclohexane*carboxylic acid.
- Hexahydroxybenzene, oxidation of (BERTRAND), A., i, 534.
- Hexahydro-*m*-xylene. See 1 : 3-Dimethyl-*cyclohexane*.
- Hexahydro-*p*-xylic acid. See 1 : 2-Dimethyl-*cyclohexane*-4-carboxylic acid.
- Hexamethoxyrosolic acid, constitution of (HOFMANN LECTURE), T., 627.
- Hexamethylbenzene, preparation of (HOFMANN LECTURE), T., 721.
- Hexamethylenediamine. See Hexylenediamine.
- o*-Hexamethylenediamine. See *cyclo*-Hexane, 1 : 2-diamino-.
- Hexamethylenetetramine, proposed formulæ for (DUDEN and SCHAEFF), A., i, 122.
- mercurochlorides and mercuriodide of (DELÉPINE), A., i, 78.
- Hexamethylethylenediammonium, salts of (SCHNEIDER), A., i, 201.
- Hexamethyltriaminotriphenylamylloxymethane (ROSENSTIEHL), A., i, 377.
- Hexamethyltriaminotriphenylcarbinol trimethiodide and trimethohydroxide of (ROSENSTIEHL), A., i, 376.
- Hexamethyltriaminotriphenylethoxymethane (ROSENSTIEHL), A., i, 376.
- Hexamethyltriaminotriphenylhydroxymethane, methiodide of (ROSENSTIEHL), A., i, 377.
- Hexamethyltriaminotriphenyliodomethane, methiodide of (ROSENSTIEHL), A., i, 377.
- Hexamethyltriaminotriphenylmethane, trimethiodide and trimethohydroxide of (ROSENSTIEHL), A., i, 376.
- Hexamethyltriaminotriphenylmethoxymethane and its trimethiodide, and monomethiodide (ROSENSTIEHL), A., i, 376.
- Hexane, normal, from light petroleum (THOMAS and YOUNG), P., 1895, 172.
- normal, physical constants of (THOMAS and YOUNG), P., 1895, 174.
- d*initro- (PONZIO), A., i, 461.
- cyclo*-Hexane, stereoisomerism of (WILLSTÄTTER), A., i, 452.
- 1 : 2-diamino-, and its hydrochloride (EINHORN and BULL), A., i, 472.
- Hexane-2 : 6-ketol. See *n*-Acetylbutylic alcohol.
- HEXANETRICARBOXYLIC ACID:—*d*-iso-Propylpropane-*dd*,*d*<sub>1</sub>-tricarboxylic acid, and salts (PERKIN), T., 1492, 1493; P., 1896, 170, 154; (HEINKE and PERKIN), T., 1507; P., 1896, 155.
- action of heat on (PERKIN), T., 1495.
- ethylic salt (PERKIN), T., 1490, 1491; P., 1896, 170, 154; (HEINKE and PERKIN), T., 1507; P., 1896, 155; (AUWERS and TITHERLEY), A., i, 643.
- action of alcoholic potash on (HEINKE and PERKIN), T., 1507; P., 1896, 155.
- sodio-, action of phenoxyethylic brom-

ide on (PERKIN), T., 1504; P., 1896, 170.

*cyclo*-Hexanone, condensation of, with benzaldehyde (PETRENKO-KRITSCHENKO and ARZIBASCHEFF), A., i, 671.

3-*cyclo*-Hexanone-1-carboxylic acid and its ethylic salt (EINHORN and COBLITZ), A., i, 531.

*cyclo*-Hexenedicarboxylic acids (*tetrahydrophthalic acids*) (HOWE), A., i, 481.

HEXENOIC ACIDS:—

$\alpha\beta$ -*iso*-Hexenoic acid, action of bromine, hydrogen bromide, and sulphuric acid on (BRAUN), A., i, 594.

oxidation of (BRAUN), A., i, 594.

$\beta\gamma$ -*iso*-Hexenoic acid, and the action of sulphuric acid on (BRAUN), A., i, 594.

$\alpha$ -Ethylcrotonic acid (*ethylallylacetic acid*) (HJELT), A., i, 598.

*iso*-Propylacrylic and trimethylacrylic acids, preparation of the mixed ethereal salts of (PERKIN), T., 1488; P., 1896, 170, 154.

ethylic salt, action of ethylic sodiomalonate on (PERKIN), T., 1490; P., 1896, 170, 154.

Trimethylacrylic acid (PERKIN), T., 1478; P., 1896, 170, 154; (PERKIN and THORPE), T., 1485; P., 1896, 157.

action of bromine on (PERKIN), T., 1480; P., 1896, 154; (PERKIN and THORPE), P., 1896, 157.

action of hydrobromic and hydriodic acids on (PERKIN), T., 1481; P., 1896, 154.

action of phosphorus trichloride on (PERKIN), T., 1480.

ethylic salt, action of ethylic malonate on (PERKIN), T., 1495.

anilide of (PERKIN), T., 1480.

chloride of and action of aniline on (PERKIN), T., 1480.

*cyclo*-Hexenyl methyl ketone (*tetrahydroacetophenone*) and granatal, identity of (CIAMICIAN and SILBER), A., i, 397.

Hexethylethylenediphosphonium dibromide, preparation of (HOFMANN LECTURE), T., 678.

dichloride, preparation of (HOFMANN LECTURE), T., 680.

diiodide and dihydrate, action of heat on (HOFMANN LECTURE), T., 678.

HEXINENES:—

Dipropenyl (DELAORE), A., i, 591.

Methylisopropylacetylene (IPATIEFF), A., i, 330.

HEXINENES:—

Methylisopropylacetylene, bromo- (IPATIEFF), A., i, 330.

Trimethylisovallylene, (IPATIEFF), A., i, 330.

HEXOIC ACIDS:—

*iso*-Hexoic acid (*iso-butylacetic acid*),  $\alpha$ -bromo-, action of ethylic sodioacetate on (AUWERS and SCHIFFER), A., i, 644.

ethylic salt (AUWERS and SCHIFFER), A., i, 644.

$\beta$ -bromo- (BRAUN), A., i, 594.

$\alpha\beta$ -dibromo- (BRAUN), A., i, 594.

$\alpha\beta$ -Trimethylpropionic acid ( *$\alpha$ -methylisopropylacetic acid*,  *$\alpha$ -methylisovaleric acid*) (PERKIN), T., 1476.

action of heat on (PERKIN), T., 1477.

action of bromine and phosphorus pentabromide on (PERKIN), T., 1478.

$\alpha\beta$ -Trimethylpropionic acid

$\alpha$ -bromo-, ethylic salt (PERKIN), T., 1478.

action of alcoholic potash on (PERKIN), T., 1478, 1485, 1486; P., 1896, 170.

action of ethylic sodiomalonate on (PERKIN and THORPE), T., 1485, 1498.

action of quinoline on (PERKIN), T., 1489; P., 1896, 170, 154.

$\beta$ -bromo- (PERKIN), T., 1481; P., 1896, 170, 154; (PERKIN and THORPE), T., 1484; P., 1896, 156.

ethylic salt (PERKIN and THORPE), T., 1484.

action of alcoholic potash on (PERKIN), T., 1478, 1485, 1486; P., 1896, 170.

action of ethylic sodiomalonate on (PERKIN), T., 1485, 1498.

hydrolysis of (PERKIN and THORPE), P., 1896, 157.

dibromo- (PERKIN), T., 1480; P., 1896, 170, 154; (PERKIN and THORPE), P., 1896, 157.

$\beta$ -iodo- (PERKIN), T., 1481; P., 1896, 170, 154; (PERKIN and THORPE), T., 1485; P., 1896, 157.

ethylic salt (PERKIN and THORPE), T., 1485.

$\gamma$ -*iso*-Hexolactone, refraction equivalent of (ANDERLINI), A., ii, 229.

Hexose, change of, to pentose derivatives in cereal celluloses (CROSS, BEVAN, and SMITH), T., 1609; P., 1896, 175.

- Hexose, formation of a pentose monoformal from, in plants (CROSS, BEVAN, and SMITH), T., 1610; P., 1896, 175.
- Hexoses, amount of, in nodules (STOKLASA), A., ii, 205.
- Hexylalylcarbinol. See under Decenylalcohols.
- $\beta$ -*iso*-Hexylamine from oxime of mesitylic oxide; its hydrochloride, platinochloride, oxalate, and carbamide (KEEP), A., i, 448.
- m*-Hexyldihydrotoluene. See 1 : 3-Methylhexylcyclohexadiene.
- HEXYLENES :—
- Hexylene, specific gravity of (WANKLYN), A., i, 2.
- iso*-Hexylene dibromide (IPATIEFF), A., i, 330.
- bromo-, action of alcoholic alkali on (IPATIEFF), A., i, 330.
- di*bromo- (IPATIEFF), A., i, 402.
- Tetramethylethylene (REFORMATSKY and PLESCONOSSOFF), A., i, 128; (DELAURE), A., i, 591, 662.
- Hexylenediamine (*hexamethylenediamine*): its hydrochloride and dibenzoyl derivative (CURTIUS and CLEMM), A., i, 464.
- Hexylenediethylurethane (CURTIUS and CLEMM), A., i, 464.
- Hexylene glycol. See Pinacene.
- HEXYLIC ALCOHOLS :—
- Methylisobutylcarbinol, from reduction of mesitylic oxide (KEEP), A., i, 448.
- Pinacolic alcohol, action of hydrogen iodide on (DELAURE), A., i, 662.
- Dimethylpropylcarbinol, preparation of (IPATIEFF), A., i, 402.
- action of bromine on (IPATIEFF), A., i, 402.
- Dimethylisopropylcarbinol (REFORMATSKY and PLESCONOSSOFF), A., i, 281.
- Hexylic hydride, specific gravity of (WANKLYN), A., i, 2.
- HEXYLIC :—Tetramethylethylic iodide (REFORMATSKY and PLESCONOSSOFF), A., i, 128.
- m*-Hexyltetrahydro-*m*-cresol. See Methyl-1-hexyl-3-cyclohexenol-5.
- m*-Hexyltoluene, 5-chloro- (GÜNDLICH and KNOEVENAGEL), A., i, 213.
- Heydoarum coronarium*, growth of and the percentage composition of (GRANDEAU), A., ii, 268.
- Hippenylethylurethane (CURTIUS), A., i, 38.
- Hippenylcarbanil (CURTIUS), A., i, 38.
- di*bromo- (CURTIUS), A., i, 39.
- di*iodo- (CURTIUS), A., i, 39.
- Hippenylethylurethane (CURTIUS), A., i, 38.
- Hippenylmethylurethane (CURTIUS), A., i, 38.
- Hippuranilide and its nitroso-derivative (CURTIUS), A., i, 38.
- Hippuric acid, heat of combustion of (STOHMANN and SCHMIDT), A., ii, 466.
- action of sodium hypochlorite on (DE CONINCK), A., i, 282.
- ethylic salt (RADENHAUSEN), A., i, 137.
- See also Agricultural chemistry. (Appendix.)
- Hippuroflavin, diamide of (RÜGHEIMER), A., i, 62.
- bismethylanilide, *o*-toluidide, *p*-toluidide and xylylide of (RÜGHEIMER), A., i, 62.
- Hippuro-*p*-toluidide (CURTIUS), A., i, 38.
- Hippuro-*p*-tolylenediamide (CURTIUS), A., i, 38.
- Hippurylazoimide (CURTIUS), A., i, 37.
- Hippurylcinnamylidenhydrazine (CURTIUS), A., i, 37.
- Hippurylhydrazine: its hydrochloride, platinochloride, and acetyl derivative (CURTIUS), A., i, 37.
- nitroso-. See Hippurylazoimide.
- Hippurylphenylhydrazine, symmetrical: its acetyl and nitroso-derivative (CURTIUS), A., i, 37.
- Hippuryltropeine (MERCK), A., i, 65.
- Hislopine from India (HOLLAND), A., ii, 261.
- Histidine (KOSSEL), A., i, 582.
- base from albumin identical with (HEDIN), A., i, 659.
- Hoefelite from Bohemia (KATZER), A., ii, 189.
- Hofmann memorial lectures (PLAYFAIR, ABEL, PERKIN, ARMSTRONG), T., 575; P., 1893, 133.
- Hofmann-violet, green dye obtained from (HOFMANN LECTURE), T., 622.
- Holcus lanatus*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Homoasparagine (KÖRNER and MENOZZI), A., i, 206.
- Homoaspartic acid (KÖRNER and MENOZZI), A., i, 206.
- amides of (KÖRNER and MENOZZI), A., i, 206.
- derivatives of, preparation of, from citraconic, mesaconic, and itaconic acids and alcoholic ammonia (KÖRNER and MENOZZI), A., i, 205, 206.

- Homocamphoric acid. See Hydroxycamphocarboxylic acid.
- Homocinchonidine, possible formation of, from cinchonine (KOENIGS and HUMANN), A., i, 707.  
and salts, microchemical reactions of (BEHRENS), A., i, 514.
- Homolinalol. See Methylallylhexenylcarbinol, under Hendeconylic alcohols.
- Homopiperonylic acid, bromo- (ANGELI), A., i, 296.
- Homopiperonyloxamic acid (ANGELI), A., i, 295.
- Homopyrocatechol, magnetic rotatory power, &c., of (PERKIN), T., 1133, 1133, 1239.
- Homoterpenoylformic acid, oxime of (VON BAEYER), A., i, 621.
- Homoterpenylic acid (VON BAEYER), A., i, 622.
- Homotroponic acid (*granatic acid*) and its aurochloride (CIAMICIAN and SILBER), A., i, 397.
- Honey, examination of, and detection of molasses and starch sugar in (BECKMANN), A., ii, 582.  
estimation of levulose in (WILEY), A., ii, 342.
- Hops. See Agricultural chemistry. (Appendix.)
- Hordein in barley meal (OSBORNE), A., i, 455.
- Hordeum vulgare*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Hornblende from British Columbia (HOFFMANN), A., ii, 257.  
from Japan (KOTŌ), A., ii, 39.  
from Lioran (FOUQUÉ), A., ii, 533.  
from Naples (FRANCO), A., ii, 313.  
a new alkali, from Ontario (ADAMS and HARRINGTON), A., ii, 374.
- Hortonolite from Monroe, N.Y. (PENFIELD and FORBES), A., ii, 373.
- Huascalite from New South Wales (LIVERSIDGE), A., ii, 658.
- Humite from Nordmark, Sweden (SjÖGREN), A., ii, 114.
- Humus, solubility of, in vegetable infusions (BRÉAL), A., ii, 670.
- Hyacinth. See Quartz.
- Hydantoic acid (WEIDEL and ROITHNER), A., i, 471.
- Hydantoinacetic acid, thio-, and its products of oxidation (ANDREASCH), A., i, 89.
- Hydracetylacetone, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1172, 1237.
- Hydræmic plethora, artificial (LEATHES), A., ii, 50.
- Hydrargillite. See Gibbsite.
- Hydrastine, physiological action of derivatives of (FALK), A., ii, 201.
- Hydrastinine, physiological action of (v. BUNGE), A., ii, 492.
- Hydrazine-derivatives, oxidation of (CURTIUS), A., i, 339.
- Hydrazibenzil, action of heat on (CURTIUS), A., i, 339.
- Hydrazides, action of iodine on (CURTIUS), A., i, 339.  
action of nitrous acid and diazo-salt on (CURTIUS), A., i, 339.  
condensation of, with aldehydes (CURTIUS), A., i, 339.
- Hydrazimine, derivatives of. See isodihyrotetrazine.
- Hydrazine, general account of (CURTIUS), A., i, 337.  
formation of, by reduction of nitroso-sulphates (DIVERS and HAGA), T., 1613; P., 1896, 179.  
action of nitrous anhydride on (CURTIUS), A., i, 338.  
behaviour of, towards nitrodiazobenzene (VON PECHMANN), A., i, 680.  
reducing action of (CURTIUS), A., i, 338.
- Hydrazine hydrate, constitution of (CURTIUS), A., i, 339.  
action of ethylic iodide on (CURTIUS), A., i, 339.  
behaviour towards ethylic derivatives of nitrophenols (PURGOTTI), A., i, 363.  
sulphate (CURTIUS), A., i, 338.  
thiocyanate (CURTIUS and HEIDENREICH), A., i, 143.  
action of heat on (CURTIUS and HEIDENREICH), A., i, 143.  
phthalyl, isophthalyl, and terephthalyl derivatives (CURTIUS and DAVIDIS), A., i, 680.
- Hydrazinecarboxylic acid, ethylic salt, hydrochloride of (THIELE and LACHMANN), A., i, 208.
- Hydrazines, *o*-nitro-, behaviour of, towards nitrous acid (ZINCKE), A., i, 420.
- Hydrazinoacetic acid, and its hydrolysis (CURTIUS), A., i, 338.
- Hydrazinobutyric acid (TRAUBE and LONGINESCU), A., i, 340.  
benzylidene derivative of (TRAUBE and LONGINESCU), A., i, 340.
- Hydrazinosisobutyric acid (THIELE and HEUSER), A., i, 340.  
action of ethylic acetoacetate on (THIELE and HEUSER), A., i, 341.  
hydrochloride, sulphate, and nitrate of (THIELE and HEUSER), A., i, 341.

- Hydrazinoisobutyric acid, ethylic salt and its hydrochloride (THIELE and HEUSER), A., i, 341.  
 methylic salt (THIELE and HEUSER), A., i, 341.
- Hydrazinodisobutyric acid and its salts (THIELE and HEUSER), A., i, 341.  
 action of heat on (THIELE and HEUSER), A., i, 341.  
 dinitroso-derivative (THIELE and HEUSER), A., i, 341.  
 mononitrile of (*hydrazoisobutyronitrilic acid*) (THIELE and HEUSER), A., i, 341.
- Hydrazinodisobutyronitrile and its oxidation (THIELE and HEUSER), A., i, 341, 342.
- Hydrazinopropionic acid (TRAUBE and LONGINESCU), A., i, 340.  
 hydrochloride of (TRAUBE and LONGINESCU), A., i, 340.  
 benzylidene derivative (TRAUBE and LONGINESCU), A., i, 340.  
 condensation of, with ethylic acetate (TRAUBE and LONGINESCU), A., i, 340.
- Hydrazinothiocarbonamide (CURTIUS and HEIDENREICH), A., i, 143.
- Hydrazinovaleric acid (TRAUBE and LONGINESCU), A., i, 340.  
 benzylidene derivative (TRAUBE and LONGINESCU), A., i, 340.  
 salicylidene derivative (TRAUBE and LONGINESCU), A., i, 340.
- Hydrazioxalyl (CURTIUS), A., i, 35.
- Hydrazobenzene (CURTIUS), A., i, 339.  
 discovery of (HOFMANN LECTURE), T., 689.
- Hydrazodicarbonamide (SCHOLTZ), A., i, 343.
- Hydrazodicarbothioallylamide, action of hydrochloric acid on (FREUND and HEILBRUN), A., i, 415.
- Hydrazonophenylglyoxylic acid (BOUVEAULT), A., i, 650.
- Hydrazones, behaviour of, towards phenylhydrazine (WALTHER), A., i, 542.
- p*-Hydrazophenyl ether (HAEUSSER-MANN and ZEICHMANN), A., i, 533.
- Hydrindene, magnetic rotatory power, &c., of (PERKIN), T., 1083, 1144, 1153, 1196, 1197, 1229, 1242.
- Hydrindone, magnetic rotatory power, &c., of (PERKIN), T., 1093, 1201, 1243.
- $\alpha$ -Hydrindone, action of bromine on (REVIS and KIPPING), P., 1895, 214.  
*dibromo-* (REVIS and KIPPING), P., 1895, 214.  
 action of alcoholic potash on (REVIS and KIPPING), P., 1895, 214.
- Hydrobenzoin, preparation of (KAUFFMANN), A., i, 650.
- iso*-Hydrobenzoin, preparation of (KAUFFMANN), A., i, 650.  
 from the electrolysis of potassium mandelate (WALKER), T., 1279.
- Hydrobilirubin, absorption spectrum of (GAMGEE), A., i, 714.
- Hydroboracite, formula of (KOSMANN), A., ii, 368.
- Hydrocarbon,  $C_6H_{10}$  (IPATIEFF), A., i, 402.  
 $C_6H_{10}$ , from reduction of mesitylic oxide; its oxine and tribromo-derivative (KERP), A., i, 448.
- $C_8H_{14}$ , derived from dihydrociscampholytamide (NOYES), A., i, 696.
- $C_9H_{16}$ , from pulegonic acid, and its nitroschloride (WALLACH), A., i, 310.
- $C_9H_{20}$ , from action of alcohol and zinc dust on dibromodipropylisopropyl alcohol (OBERREIT), A., i, 666.
- $C_{10}H_{16}$ , from oil of valerian (OLIVIERO), A., i, 492.
- $C_{10}H_{22}$ , from Berea grit petroleum (MABERY and DUNN), A., i, 329.
- $C_{11}H_{18}$ , from homolinalol and camphoric or succinic anhydride (TIE-MANN and SCHMIDT), A., i, 271.
- $C_{11}H_{24}$ , from Berea grit petroleum (MABERY and DUNN), A., i, 329.
- $C_{12}H_{26}$ , from Berea grit petroleum (MABERY and DUNN), A., i, 329.
- $(C_{13}H_{10})_n$  (KLINGER and LONNES), A., i, 374.
- $C_{14}H_{12}$ , from benzylic ethylic ether (SCHICKLER), A., i, 490.
- $C_{15}H_{22}$ , from santalal (CHAPMAN and BURGESS), P., 1896, 140.
- $C_{16}H_{24}$ , from cholesterylene (MAUTHNER and SUIDA), A., i, 426.
- $C_{19}H_{28}$ , from cholesterylic chloride (MAUTHNER and SUIDA), A., i, 426.
- $C_{20}H_{30}$ , from cholesterylene (MAUTHNER and SUIDA), A., i, 426.
- $C_{20}H_{36}$ , from menthol (TOLLOZKO), A., i, 381.
- $C_{26}H_{16}$ , from the reduction of tetraphenylenepinacoln (KLINGER and LONNES), A., i, 691.
- $C_{26}H_{18}$ , from the reduction of diphenyldiphenylenepinacoln (KLINGER and LONNES), A., i, 691.
- $C_{29}H_{60}$ , from Charas (WOOD, SPIVEY, and EASTERFIELD), T., 543; P., 1896, 76.
- Hydrocarbon flames. See Flames.
- Hydrocarbons in coal-tar (HOFMANN LECTURE), T., 693.



Hydrocarbons, molecular weight, volume, and constitution of (TRAUBE), A., ii, 153.  
poisonous effect of, on algæ and infusoria (BOKORNY), A., ii, 669.  
aromatic, synthesis of (TÖHL), A., i, 16; (JANNASCH), A., i, 147.  
bromo-, action of, on lead salts of thiophenols (BOURGEAIS), A., i, 17.  
natural, possible explanation of the formation of (MOISSAN), A., i, 633.  
unsaturated, union of the elements of water with (DESGREZ), A., i, 2.

Hydrocarbons. See also:—

Acenaphthene.  
Acetylene.  
Allylbenzene.  
Allylene (*methylacetylene*).  
Anylene.  
*β*-*iso*-Amylnaphthalene.  
Anthracene.  
Benzene.  
*p*-Bidiiphenyl.  
*iso*-Butenylbenzene.  
*iso*-Butylbenzene.  
*iso*-Butylene.  
Camphene.  
Cardene.  
Cedrene.  
Cholesterylene.  
Cinnamene.  
Citrene.  
Cumene.  
*ψ*-Cumene.  
Cymene.  
Decadiene, 1 : 3-.  
Dianthrane (*paranthracene*).  
Dibenzyl.  
Dihydrodiphenyl.  
Dimethylisallylene.  
1 : 2-Dimethyl-4 : 5-diphenylhexamethylene.  
1 : 3-Dimethylcyclohexane.  
1 : 3-Dimethylcyclohexadiene.  
1 : 4-Dimethylnaphthalene.  
1 : 3-Dimethylcyclopentane.  
Dimethylisopropylethylene.  
Dimethylstilbene.  
Dipentene.  
Diphenyl.  
Diphenylacetylene (*tolane*).  
*m*-Diphenylbenzene.  
4 : 5-Diphenyl-1 : 2-dimethylcyclohexane.  
Diphenyldiphenylene-ethane.  
*ass*-Diphenyldiphenylene-ethane.  
Diphenyldiphenylene-ethylene.  
Diphenyldiphenylenethylene.  
Diphenylmethane.  
Diphenylcyclopentane.  
Dipropenyl.

Hydrocarbons. See:—

Ethane.  
Ethylbenzene.  
Ethylcymene.  
Ethylene.  
Ethylidenecyclopropane.  
Ethylidenetrimethylene.  
*p*-Ethyltoluene.  
Heptane.  
Heptinene (*ænanthylidene*).  
*cyclo*-Hexadiene.  
Hexahydrocymene (*menthane* 1 : 4-*methylpropylcyclohexane*).  
Hexahydro-*m*-xylene (1 : 3-*dimethylcyclohexane*).  
Hexamethylbenzene.  
Hexane.  
Hexylene.  
Hydrindene.  
Indene.  
Laurolene.  
Ledene.  
Limonene.  
Menthane.  
Menthonaphthene.  
Mesitylene.  
Methane.  
Methylacetylene.  
Methylamylacetylene.  
Methylbutylacetylene.  
Methylethylethylene.  
Methylhexylcyclohexadiene.  
Methylcyclohexane.  
1 : 4-Methylpropylcyclohexane.  
1 : 3-Methylisopropylcyclohexadiene.  
Methylisopropylacetylene.  
Methylisopropylbenzene.  
Methyltridecylacetylene.  
Naphthalene.  
Octinene (*methyl-6-heptandiene*; 1 : 3-*caprylidene*).  
Paraffin.  
Phenanthrene.  
Phenylacetylene.  
*o*- and *m*-Phenyltoluenes.  
Phenyl-*p*-tolylmethane.  
Pinene.  
Propylbenzene and *iso*-Propylbenzene.  
Propylene.  
Sesquiterpene.  
Stilbene.  
Terpene.  
Terpinolene.  
Tetradecylacetylene.  
Tetrahydrotoluene.  
Tetramethylethylene.  
Tetraphenyldiphenylene-propane.  
Tetraphenylethylene.  
Tetraphenylmethylene.  
Tolane.  
Toluene.  
Trimethylisallylene.

## Hydrocarbons. See:—

- Trimethylbenzene.
- Trimethylene.
- Trimethylethylene (*amylene*).
- 1 : 2 : 5-Trimethylcyclohexane.
- Triphenylmethane.
- Vinylcyclopropane (*vinyltrimethylene*).
- o*-, *m*-, and *p*-Xylenes.
- Hydrocarbostyryl-3'-carboxylic acid and its silver salt (REISSERT), A., i, 392.
- ethylic salt of (REISSERT), A., i, 392.
- Hydrocinnamic acid. See Phenylpropionic acid.
- Hydrocotarnine, action of benzaldehyde and cinnamaldehyde on (LIEBERMANN), A., i, 711.
- action of bromopropionic acid on (LIEBERMANN), A., i, 711.
- action of methylisopropionic acid on (LIEBERMANN), A., i, 711.
- action of nitro-opionic acid on (LIEBERMANN), A., i, 711.
- Hydrocotarninephthalide and its salts (LIEBERMANN), A., i, 264.
- Hydrogen, possible occurrence of, in air (PHILLIPS), A., ii, 162.
- atomic weight of (THOMSEN), A., ii, 244; (MORLEY), A., ii, 640.
- spectrum of the flame of (BOHN), A., ii, 140.
- behaviour of, when submitted to the electric discharge (COLLIE and RAMSAY), A., ii, 634.
- boiling point and critical temperature of (OLZEWSKI), A., ii, 9.
- liquefaction of (DEWAR), P., 1895, 229; (RAMSAY), P., 1895, 231.
- density of (THOMSEN), A., ii, 471; (MORLEY), A., ii, 595.
- direct union of, with carbon (BONE and JORDAN), P., 1896, 61.
- combination of, with oxygen (MEYER and RAUM), A., ii, 162.
- rate of combination of oxygen and (GAUTIER and HÉLIER), A., ii, 416.
- velocity of attraction of oxygen for (TECLU), A., ii, 14.
- explosive mixtures of air and (CLOWES), P., 1895, 201.
- oxidation by palladinised copper oxide (CAMPBELL), A., ii, 171.
- influence of, on fermentation by yeast (RAFF), A., ii, 668.
- Hydrogen peroxide, anhydrous, preparation of (BRÜHL), A., ii, 162.
- production of, during oxidation (DIXON), T., 779; P., 1896, 56.
- formation of, in the electrolysis of dilute acid (RICHARZ and LONNES), A., ii, 586.

- Hydrogen peroxide, formation of, from ether by action of light (RICHARDSON and FORTEY), T., 1352; P., 1896, 165.
- formation of, from certain organic substances by action of light (RICHARDSON and FORTEY), T., 1349; P., 1896, 164, 165.
- physical constants of (BRÜHL), A., ii, 163.
- decomposition of (SPRING), A., ii, 92.
- action of, on ammoniacal copper compounds (VITALI), A., ii, 92.
- velocity of the reaction between hydriodic acid and (NOYES and SCOTT), A., ii, 158; (HARCOURT and ESSON), A., ii, 238.
- reaction of silver oxide and (RIEGLER), A., ii, 471.
- reaction of furfuroids with (CROSS, BEVAN, and SMITH), T., 1607; P., 1896, 174.
- oxidation of pentoses by (CROSS, BEVAN, and SMITH), T., 815; P., 1896, 96.
- non-occurrence of, in plants (CHO), A., ii, 60.
- separation of ozone from (ENGLER and WILD), A., ii, 574.
- Hydrogen, delicate reaction for (PHILLIPS), A., ii, 162.
- estimation of, by palladious chloride (CAMPBELL and HART), A., ii, 496.
- estimation of, in presence of methane (GILL and HUNT), A., ii, 341.
- Hydrolapachol, chlor- (HOOKER), T., 1361.
- Hydrolysis and etherification (WEGSCHEIDER), A., i, 95.
- facility of (BRÜHL), A., i, 178.
- of salicin by acids (NOYES and HALL), A., ii, 159.
- See also Velocity of hydrolysis.
- Hydrolytic decomposition in aqueous solution (KRAFFT and STRUTZ), A., ii, 467.
- Hydrometasantonin and its oxime (FRANCESCONI), A., i, 378.
- Hydrothiosuccinic acid. See Succinic acid, hydrothio-.
- Hydrotiglic acid. See Valeric acid.
- $\alpha$ -Hydroxy-acids, action of chloral on (EDELEANU and ZAHARIA), A., i, 348.
- 1-Hydroxy-1'-acetonyl-3 : 3'-dimethylisoquinoline, hydrochloride, platinochloride (COLLIE and WILLSMORE), T., 301; P., 1896, 47.
- o*-Hydroxyacetophenone, condensation of, with benzaldehyde (FRIEDLÄNDER and RÜDT), A., i, 439.

- 1'-Hydroxy-3'-amylquinoline (NIEMEN-  
TOWSKI and ORZECOWSKI), A., i,  
188.
- Hydroxyanthraquinones, hydroxylation  
of (WACKER), A., i, 693.
- Hydroxyaposafranine (FISCHER and  
HEPP), A., i, 323.  
formation of, from anilidoaposafran-  
one and from aposafranine (FIS-  
CHER and HEPP), A., i, 50.
- Hydroxyazobenzene, effect of, on the  
freezing point of dilute soda solution  
(GOLDSCHMIDT and GIRARD), A., i,  
475.
- p*-Hydroxyazobenzene, benzoyl deriva-  
tive of (McPHERSON), A., i, 28.
- p*-Hydroxybenzaldehyde, condensation  
of, with *o*-aminobenzylamine  
(BUSCH), A., i, 508.  
*m*-bromo-, and its sodium and silver  
derivatives (PAAL), A., i, 40.  
*m*-iodo- (PAAL), A., i, 40.
- p*-Hydroxybenzaldoxime, *m*-dibromo-  
(PAAL and KROMSCHRÖDER), A., i,  
225.
- o*-Hydroxybenzhydrazide, and its benzyl-  
idene derivative (STRUVE and RADEN-  
HAUSEN), A., i, 36.
- m*-Hydroxybenzhydrazide, and its  
benzylidene derivative (STRUVE and  
RADENHAUSEN), A., i, 36.
- p*-Hydroxybenzhydrazide, and its  
benzylidene derivative (STRUVE and  
RADENHAUSEN), A., i, 36.
- o*-Hydroxybenzoic acid. See Salicylic  
acid.
- m*-Hydroxybenzoic acid (DE CONINCK),  
A., i, 473.  
compound of, with antipyrine (PATEIN  
and DUBAU), A., i, 650.  
ethylic salt of, benzoic derivative of  
(LIMPRICHT), A., i, 435.
- p*-Hydroxybenzoic acid (DE CONINCK),  
A., i, 473.  
compound of, with antipyrine (PATEIN  
and DUBAU), A., i, 650.
- p*-Hydroxybenzoic acid, 3-amino-, and  
its acetate (DIEPOLDER), A., i, 615.  
*m*-bromo- (PAAL), A., i, 40.  
*m*-dibromo- (PAAL and KROM-  
SCHRÖDER), A., i, 225.  
3-nitro-, and its ammonium salt  
(DIEPOLDER), A., i, 615.
- o*-Hydroxybenzophenone, a method of  
preparation of (GRAEBE and ULL-  
MANN), A., i, 440.  
and its sodium derivative (COHN),  
A., i, 440.
- o*-Hydroxybenzophenone, dibromo-  
(COHN), A., i, 440.
- p*-Hydroxybenzophenone, preparation of  
(LIMPRICHT), A., i, 435.
- o*-Hydroxybenzoylazoimide (STRUVE  
and RADENHAUSEN), A., i, 36.
- m*-Hydroxybenzoylazoimide (STRUVE  
and RADENHAUSEN), A., i, 36.
- p*-Hydroxybenzoylazoimide (STRUVE  
and RADENHAUSEN), A., i, 36.
- Hydroxybenzylhydrocotarnine, prepa-  
ration of (LIEBERMANN), A., i, 711.
- Hydroxybenzylideneacetophenone. See  
Phenyl hydroxystyryl ketone.
- o*-Hydroxybenzylidene-*o*-aminobenzyl-*o*-  
anisidine (BUSCH, BRUNNER, and  
BIRK), A., i, 160.
- o*-Hydroxybenzylidene-*o*-aminobenzyl-  
*p*-bromaniline (BUSCH and HEINEN),  
A., i, 159.
- o*-Hydroxybenzylidene-*o*-aminobenzyl-  
*p*-chloraniline (BUSCH and VOLKE-  
NING), A., i, 158.
- o*-Hydroxybenzylidene-*o*-aminobenzyl-  
*p*-phenetidine (BUSCH and HARTMANN),  
A., i, 160.
- p*-Hydroxybenzylideneaniline, *m*-bromo-  
(PAAL), A., i, 40.  
dibromo- (PAAL and KROMSCHRÖDER),  
A., i, 225.
- o*-Hydroxybenzylidenediacetophenone,  
bromo-, and its acetyl derivative  
(CORNELSON and KOSTANECKI), A.,  
i, 241.
- o*-Hydroxybenzylidenebismethyl-*p*-tolyl  
ketone and its acetyl derivative (COR-  
NELSON and KOSTANECKI), A., i, 240.
- o*-Hydroxybenzylidenediacetophenone  
and its acetyl derivative (CORNELSON  
and KOSTANECKI), A., i, 240.
- p*-Hydroxybenzylidene- $\alpha$ -naphthyl-  
amine, *m*-dibromo- (PAAL and  
KROMSCHRÖDER), A., i, 225.
- o*-Hydroxybenzylidene- $\beta$ -naphthyl-*o*-  
aminobenzylhydrazine (BUSCH and  
BRAND), A., i, 161.
- p*-Hydroxybenzylidene-*p*-toluidine, *m*-di-  
bromo- (PAAL and KROMSCHRÖDER),  
A., i, 225.
- 2- (or 4-) Hydroxybenzylphenazone,  
1-chlor- (KEHRMANN and FÜHNER),  
A., i, 512.
- $\delta$  Hydroxybutane- $\alpha\gamma\delta$ -tricarboxylic  
acid, lactone of (BESTHOEN), A., i,  
252.
- Hydroxybutyric acid (WEIDEL and  
ROITHER), A., i, 470.
- w*-Hydroxy-*cis*- $\pi$ -camphanic acid and its  
acetyl derivative (KIPPING), T., 947;  
P., 1896, 115.
- Hydroxycamphocarboxylic acid (*homo*-  
*camphoric acid*) and its silver salt  
(BREDT and ROSENBERG), A., i, 178.
- $\pi$ -Hydroxycamphoric acid, barium salt,  
acetyl derivative of the anhydride  
(KIPPING), T., 938; P., 1896, 115.

- $\pi$ -Hydroxycamphoric acid, oxidation of (KIPPING), P., 1895, 211.
- Hydroxycamphoronic acid, constitution of (BÉNAL), A., i, 179.
- w*-Hydroxycamphotricarboxylic acid, isomeric lactones, silver salt (KIPPING), T., 961; P., 1896, 115.
- Hydroxycarvone, sodium derivative of (VON BAEYER), A., i, 246.
- Hydroxy- $\psi$ -cumenol, dibromo- (AUWERS and AVERY), A., i, 151.
- acetate (AUWERS and AVERY), A., i, 151.
- ether, and its diacetate (AUWERS and AVERY), A., i, 151.
- compound of, with phenylcarbinide (AUWERS and AVERY), A., i, 151.
- Hydroxydibromocamphorsulphonic acid: its bromide and lactone (LAPWORTH and KIPPING), P., 1896, 78.
- Hydroxydihydrocarvone from oxidation of pinole hydrate: its oxime, semicarbazone (WALLACH), A., i, 571.
- Hydroxydihydrocarvoxime, diacetyl derivative (WALLACH), A., i, 571.
- Hydroxydimethoxycoumarin- $\beta$ -carboxylic acid and its ethylic salt (BIGINELLI), A., i, 369.
- $\beta$ -Hydroxy- $\alpha\alpha$ -dimethylglutaric acid (REFORMATSKY), A., i, 206.
- ethylic salt (REFORMATSKY), A., i, 206.
- $\beta$ -Hydroxy- $\alpha\alpha$ -dimethylglutaric anhydride (REFORMATSKY), A., i, 206.
- $\alpha$ -Hydroxy- $\alpha\beta$ -dimethylglutaric acid, ethylic salt, and the action of hydriodic acid on (MONTMARTINI), A., i, 667.
- Hydroxydimethylglutaric lactone, bromo-, anilide of (AUWERS, SCHIFFER, and SINGHOF), A., i, 643, 644.
- $\beta$ -naphthalide of (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.
- p*-toluidide of (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.
- Hydroxydimethylsohexoic acids. See Hydroxyoctoic acids.
- Hydroxydimethylisopropylpropionic acid. See Hydroxyoctoic acids.
- 2'-Hydroxydiphenylamine, 2 : 4-diamino- (NIETZKI and SIMON), A., i, 164.
- 4'-Hydroxydiphenylamine, 2 : 4-diamino-, and its hydrochloride (NIETZKI and SIMON), A., i, 164.
- 4'-Hydroxydiphenylamine, 2 : 4-dinitro-, and its acetyl derivative (NIETZKI and SIMON), A., i, 164.
- $\alpha\beta$ -Hydroxydiphenylbutyric acid (isophenethylmandelic acid) (JAPP and LANDER), P., 1896, 108.
- $\gamma$ -Hydroxy- $\beta\gamma$ -diphenylbutyric acid (JAPP and LANDER), P., 1896, 110.
- $\alpha$ -Hydroxy- $\alpha\beta$ -diphenylethylamine, formate of (SÖDERBAUM), A., i, 484.
- formyl, diformyl, acetyl, diacetyl, benzoyl, and dibenzoyl derivatives of (SÖDERBAUM), A., i, 484.
- Hydroxydiphenylethylamine, isomeride of: its hydrochloride and platinochloride (SÖDERBAUM), A., i, 98.
- $\beta$ -Hydroxy- $\alpha\beta$ -diphenylethylurethane (SÖDERBAUM), A., i, 483.
- $\alpha$ -Hydroxy- $\alpha\beta$ -diphenylmethane, *o*-cyaro- (GABRIEL and STELZNER), A., i, 507.
- 1-Hydroxy-1 : 2-diphenylcyclopentan-4-one (JAPP and LANDER), P., 1896, 107.
- 2-Hydroxy-2 : 3-diphenylcyclopentenonylacetic acids,  $\alpha$ - and  $\beta$ - (JAPP and MURRAY), P., 1896, 147.
- 2-Hydroxy-2 : 3-diphenylcyclopentenonylacetic acid,  $\beta$ -lactone of (JAPP and MURRAY), P., 1896, 147.
- 3 : 1 : 5-Hydroxydiphenyltriazole (WIDMAN), A., i, 630; (YOUNG), A., i, 702.
- acetyl derivative of (WIDMAN), A., i, 630.
- 1 : 2' : 4 : 2-Hydroxydisulphonaphthoic acid, sodium hydrogen, and barium hydrogen salts (FRIEDLÄNDER and ZINBERG), A., i, 244.
- 4'-Hydroxy-4-ethoxy-2'-methylquinoline and its salts (WENGHÖFFER), A., i, 360.
- 2-Hydroxyethylphenazone (KEHRMANN and TIKHVINSKY), A., i, 511.
- Hydroxyethyltriethylphosphonium hydroxide, preparation of (HOFMANN LECTURE), T., 678.
- Hydroxyfumaric acid, identity of, with oxalacetic acid (MICHAEL and BUCHER), A., i, 600.
- $\alpha\gamma$ -Hydroxyglutaric acid (GUSTAVSON), A., i, 669.
- HYDROXYHEPTOIC ACID:— $\beta$ -Hydroxytetramethylpropionic acid, (tetramethylethylenelactic acid), synthesis of (REFORMATSKY and PLESCONSOFF), A., i, 128.
- ethylic salt (REFORMATSKY and PLESCONSOFF), A., i, 128.
- Hydroxyisohexotolactone (FITTIG and WOLFF), A., i, 136.
- Hydroxyhexahydrotoluene. See 3 : 1-Hydroxymethylcyclohexane.

- Hydroxyhexamethylenecarboxylic acids.  
See Hydroxycyclohexanecarboxylic acids.
- 3-Hydroxycyclohexane-1-carboxylamide (EINHORN and COBLITZ), A., i, 530.
- 3-Hydroxycyclohexane-1-carboxylic acid and its salts (EINHORN and COBLITZ), A., i, 530.
- HYDROXYHEXOIC ACIDS:—
- β-Hydroxyisohexoic acid (*hydroxyisocaproic acid*) (BRAUN), A., i, 594.
- Hydroxyisohexoic acid, lactone of (*isocapro lactone*) (BRAUN), A., i, 594.
- β-Hydroxy-αββ-trimethylpropionic acid (*hydroxy-α-methylisovaleric acid*) (PERKIN and THORPE), T., 1482, 1486, 1487; P., 1896, 156.  
action of hydriodic and hydrobromic acids on (PERKIN), T., 1487; (PERKIN and THORPE), T., 1484, 1485.  
salts of (PERKIN and THORPE), T., 1486, 1487.  
ethylic salt (PERKIN and THORPE), T., 1482; P., 1896, 156.
- Hydroxy-β-isohexylamine, and its oxalate (KERP), A., i, 448.
- Hydroxyhydrolapachol (HOOKER), T., 1361.
- 1'-Hydroxyindole-2'-carboxylic acid and its acetyl and benzoyl derivatives (REISSERT), A., i, 389  
methylic and ethylic salts (REISSERT), A., i, 389.
- Hydroxyketostearic acid (BEHREND), A., i, 410.
- Hydroxylactone, C<sub>10</sub>H<sub>16</sub>O<sub>3</sub>, from oxidation of pulegonic acid (WALLACH), A., i, 311.
- Hydroxylamine, formation of, by reduction of nitrites (DIVERS and HAGA), T., 1612; P., 1896, 179.  
action of hydrogen iodide on (DUNSTAN and GOULDING), T., 840, 841; P., 1896, 73.  
action of, on nitrobenzene (ANGELI), A., i, 613.  
derivatives from nitro-compounds (BAMBERGER and KNECHT), A., i, 430.  
amidosulphonate (DIVERS and HAGA), T., 1647.  
hydrochloride, action of magnesium on solutions of (VITALI), A., ii, 420.  
oxidising action of (BILTZ), A., i, 690.  
comparison of hydriodides and hydrochlorides of (DUNSTAN and GOULDING), T., 841, 842.
- Hydroxylamine sulphate, preparation of (DIVERS and HAGA), T., 1665; P., 1896, 178  
action of metallic iodides on (DUNSTAN and GOULDING), T., 840.  
estimation of (DENIGÈS), A., ii, 387.
- Hydroxylaminesuccinylhydroxamic acid (ERRERA), A., i, 209.
- Hydroxylaminic acids, action of nitrous acids on (TRAUBE), A., i, 9.
- Hydroxylaminoacetic acid (TRAUBE) A., i, 9; HANTZSCH and WILD), A., i, 286.
- Hydroxylaminoisobutyric acid. See *iso-Butyric acid*, hydroxylamido-.
- Hydroxylaminoisobutyronitrile. See *Isobutyronitrile*, hydroxylamido-.
- Hydroxy-*iso*-lapachol, preparation of (HOOKER), T., 1368, 1375.
- Hydroxy-*α*-lapachone, synthesis of (HOOKER), T., 1370, 1372.
- Hydroxy-β-lapachone, formation of (HOOKER), T., 1381.  
preparation of (HOOKER), T., 1368.
- Hydroxylauronic acid (NOYES), A., i, 696.
- Hydroxymeroquinene and its salts (KOENIGS), A., i, 64
- Hydroxymethanetrisulphonic acid (VON PECHMANN and MANCK), A., i, 16.
- β-Hydroxy-β-methyladipic acid (TIE-MANN and SCHMIDT), A., i, 272.
- p*-Hydroxy-*m*-methylbenzoic acid, *lævo*-rotatory ammonium salt of (RÜGHEIMER), A., i, 616.
- 5 : 2-Hydroxymethylcoumalin (RUHE-MANN and WOLFF), T., 1388.
- 5 : 1-Hydroxymethyldihydropyridone-3 : 4-dicarboxylic acid, amide of mon-ethylic salt (RUHEMANN and TYLER), T., 533; P., 1896, 73.
- Hydroxymethylenebenzylic cyanide, carbanilido-derivative of (WISLICE-NUS), A., i, 553.
- Hydroxymethylenephénylacetic acid, ethylic salt of, and its salts (WISLICE-NUS), A., i, 552, 554.  
carbanilido-derivative of (WISLICE-NUS), A., i, 553.
- 1 (or 2) : 4-Hydroxymethylethylene-phenazone (KEHRMANN and TIKH-VINSKY), A., i, 511.
- β-Hydroxy-δ-methylfurfuraldehyde (KIERMAYER), A., i, 144.  
action of oxalic acid on (KIERMAYER), A., i, 144.  
oxidation of (KIERMAYER), A., i, 144.  
aldoximes of, and their behaviour when heated (KIERMAYER), A., i, 144.  
phenylhydrazone of (KIERMAYER), A., i, 144.

- 1 : 3-Hydroxymethylcyclohexane (*m-hydroxyhexahydrotoluene*) (WALLACH), A., i, 310.
- 2 : 1-Hydroxymethylphenazone and its hydrochloride (KEHRMANN and TIKHVINSKY), A., i, 511.
- 1 (or 4) : 2-Hydroxymethylphenazone, chloro- (KEHRMANN and FÜHNER), A., i, 512.
- 1 (or 2) : 4-Hydroxymethylphenylphenazone (KEHRMANN and TIKHVINSKY), A., i, 511.
- $\beta$ -Hydroxymethylpicolinic acid, lactone of, and its platinochloride and barium salts (ZINCKE and WINZHEIMER), A., i, 500.
- $\beta$ -Hydroxy- $\delta$ -methylpyromucic acid and its benzoyl derivative (KIERMAYER), A., i, 144.
- oxidation of (KIERMAYER), A., i, 144.
- 4'-Hydroxy-2'-methylquinazoline, hydrochloride of (NIEMENTOWSKI), A., i, 578.
- Hydroxynaphthadiphenazone, dibromo-, and its sodium derivative [N : Br<sub>2</sub> : O = 1 : 3 : 5 : 4; N : OH = 1 : 4] (MÖHLAU and UHLMANN), A., i, 167.
- 3 : 4-Hydroxynaphthalenesulphonic acid, 1-amino-, acetyl derivative of (FRIEDLÄNDER and RÜDT), A., i, 568.
- 1' : 3'-Hydroxynaphthalenesulphonic acid, 2-amino- (TAÜBER and WALDER), A., i, 692.
- 2-diazo- (TAÜBER and WALDER), A., i, 692.
- 2-hydrazo- (TAÜBER and WALDER), A., i, 692.
- Hydroxynaphthaquinone, condensation of, with benzyl-*o*-phenylenediamine (KEHRMANN and TIKHVINSKY), A., i, 511.
- condensation of, with ethyl-*o*-phenylenediamine (KEHRMANN and FÜHNER), A., i, 511.
- $\beta$ -Hydroxy- $\alpha$ -naphthaquinone, condensation of, with *iso*-valeraldehyde. See *iso*-Valeraldehyde.
- 2-Hydroxynaphthaquinone-4-imide, 1-oxime (KEHRMANN and HERTZ), A., i, 566.
- 2 : 1 : 4-Hydroxynaphthaquinonediimide (KEHRMANN and HERTZ), A., i, 567.
- 1 : 2-Hydroxynaphthoic acid, etherification of (MEYER), A., i, 547.
- 2 : 3-Hydroxynaphthoic acid, constitution of (MÖHLAU ; SCHÖPFF), A., i, 243.
- constitution of, in relation to colour (ARMSTRONG), P., 1896, 42.
- etherification of (ARMSTRONG), P., 1896, 43.
- 2 : 3-Hydroxynaphthoic acid, 1-amino- (MÖHLAU and KRIEBEL), A., i, 242.
- 1-nitroso-, reduction of (MÖHLAU and KRIEBEL), A., i, 242.
- 4-Hydroxynaphthyl-3 : 5-dibromo-4-hydroxyphenylamine (MÖHLAU and UHLMANN), A., i, 167.
- Hydroxyoctaldehyde (*trimethyl-2 : 2 : 4-pentanol-3-al-1*) and its acetyl derivatives (URBAIN), A., i, 590.
- HYDROXYOCTOIC ACIDS :—
- $\beta$ -Hydroxy- $\alpha$ -dimethylisohexoic acid ( *$\beta$ -hydroxy- $\alpha$ -dimethyl- $\beta$ -isopropylpropionic* or *diisopropylglycollic acid*), (BARYLOWITSCH), A., i, 11; (FRANKE), A., i, 404.
- of Wohlbrück-Hantzsch, identity of, with diisopropylglycollic acid (BARYLOWITSCH), A., i, 11.
- $\beta$ -Hydroxy- $\alpha$ -dimethyl- $\beta$ -isopropylpropionic acid, and the action of hydriodic acid on (REFORMATSKY), A., i, 128, 129.
- ethylic salt (REFORMATSKY), A., i, 128.
- Hydroxyoxamide (SCHIFF and MOW-SACCHI), A., i, 209.
- Hydroxypentadecic acid and its acetyl derivative (CIAMICIAN and SILBER), A., i, 596.
- 3'-Hydroxyphenazine, 3-amino-, and its diacetyl derivative (NIETZKI and SIMON), A., i, 164.
- $\gamma$ -Hydroxy- $\beta$ -phenoxyethylbutyric acid (BENTLEY, HAWORTH, and PERKIN), T., 170 ; P., 1896, 36.
- p*-Hydroxyphenyl *p*-tolyl ketone (LIMPRICHT and SAMITZ), A., i, 42.
- 3 : 1 : 5-Hydroxyphenylisobutyltriazole and its benzoyl derivative (WIDMAN), A., i, 630.
- ab-p*-Hydroxyphenylcarboxyethylthiocarbamide (DORAN), T., 329 ; P., 1896, 74.
- 4-Hydroxy-5-phenyl-2 : 6-dibenzyl-*m*-diazine, bromo- (HERFELDT), A., i, 393.
- o*-Hydroxyphenylethyl propyl ketone (HARRIES and BUSSE), A., i, 301.
- phenylhydrazone (HARRIES and BUSSE), A., i, 301.
- Hydroxyphenylethylamine, three isomerides of (ERLENMEYER), A., i, 305.
- 3 : 1 : 5-Hydroxyphenylethyltriazole (WIDMAN), A., i, 630.
- p*-Hydroxyphenylic ether (HAEUSSERMANN and BAUER), A., i, 677.
- Hydroxyphenylindazole and its mercurchloride and silver nitrate (AUWERS and SONDHEIMER), A., i, 504.
- iso*-Hydroxyphenylindazole and its

- acetyl derivative (AUWERS and SONDEIMER), A., i, 504.
- 2-Hydroxyphenylphenazine (KEHRMANN and TIKHIVSKY), A., i, 511.
- 3 : 1 : 5-Hydroxyphenylpropyltriazole (WIDMAN), A., i, 630.
- 3 : 1 : 5-Hydroxyphenylisopropyltriazole and its hydrochloride and acetyl derivatives (WIDMAN), A., i, 630.
- 3 : 1 : 5-Hydroxyphenylstyryltriazole and its sodium derivative (WIDMAN), A., i, 630.
- p*-Hydroxyphenylsuccinamic acid and its salts (PIUTTI), A., i, 223.
- p*-Hydroxyphenylsuccinimide (PIUTTI), A., i, 223.
- p*-Hydroxy-2'-phenyltetrahydroquinazoline (BUSCH), A., i, 508.
- 3 : 1-Hydroxyphenyltriazole (WIDMAN), A., i, 630.
- Hydroxypinic acid (VON BAEYER), A., i, 308, 620.
- Hydroxypinole dibromide, acetyl derivative of (WALLACH), A., i, 102.
- $\alpha$ -Hydroxypropionic acid,  $\beta$ -trichloro-ethylic salt, action of chloral of (EDELEANU and ZAHARIA), A., i, 348.
- Hydroxyisopropylglutaric acid (FITTIG and WOLFF), A., i, 135.
- 3-Hydroxypyridine, nitro- (WEIDEL and MURMANN), A., i, 105.
- d*nitro- (WEIDEL and MURMANN), A., i, 105.
- $\alpha$ -Hydroxypyridone,  $\beta$ -chloro-, its sodium and potassium salts and anilide (ZINCKE and WINZHEIMER), A., i, 499.
- di*chloro- (ZINCKE and WINZHEIMER), A., i, 501.
- Hydroxyquinacridone (NIEMENTOWSKI), A., i, 261.
- 4'-Hydroxyquinazoline, chromate of (NIEMENTOWSKI), A., i, 578.
- 1-Hydroxyquinoline, ethobromide of (CLAUS and MOHL), A., i, 697.
- methosulphate, methiodichromate, and methoxalate of (CLAUS and MOHL), A., i, 697.
- 1-Hydroxyquinoline, 2 : 4-*di*amino-, and its salts and diacetyl and dibenzoyl derivative (CLAUS and DEWITZ), A., i, 654.
- 4-bromo-, methiodide and methohydroxide of (CLAUS and MOHL), A., i, 697.
- 2 : 4-*di*bromo-, and its hydrobromide and dibromide (CLAUS and HOWITZ), A., i, 255.
- 2 : 4 : 3'-*tri*bromo- (CLAUS and HOWITZ), A., i, 255.
- 2 : 4-*d*nitro-, and its salts (CLAUS and DEWITZ), A., i, 654.
- 3-Hydroxyquinoline, 4-bromo-, hydrobromide of, action of bromine on (CLAUS and HOWITZ), A., i, 255.
- 1 (? 2) : 4 : 3'-*tri*bromo- (CLAUS and HOWITZ), A., i, 255.
- 4-Hydroxyquinoline, action of bromine on (CLAUS), A., i, 449.
- 4-Hydroxyquinoline, 1-bromo- (CLAUS), A., i, 449.
- 3-bromo- (CLAUS), A., i, 449.
- 1 : 3-*di*bromo- (CLAUS), A., i, 449.
- 1-Hydroxyquinolinephenazine, 2-chloro-, and its hydrochloride (ZINCKE and WEIDERHOLD), A., i, 502.
- 1 : 4 : 3-Hydroxyquinolinequinone, 2-chloro-, and its sodium, acetyl, aniline, and toluidine derivatives and its oxime (ZINCKE and WINZHEIMER), A., i, 499 (ZINCKE and WIEDERHOLD), A., i, 501.
- 4-Hydroxy-1-quinolinesulphonic acid and its sodium salt (CLAUS), A., i, 450.
- o*-Hydroxystyryl propyl ketone (HARRIES and BUSSE), A., i, 301.
- phenylhydrazone (HARRIES and BUSSE), A., i, 301.
- $\alpha$ -Hydroxysuccinic acid, boiling point under reduced pressure of (KRAFFT and DYES), A., ii, 89.
- Hydroxytetrahydrocarvone, from carone (VON BAEYER), A., i, 246.
- 8-Hydroxytetrahydrocarvonebisnitrosylic acid (VON BAEYER), A., i, 246.
- 2 : 3-Hydroxytetrahydro-naphthylamine : its picrate, aurochloride, and platinumchloride (BAMBERGER and LODTER), A., i, 100.
- $\beta$ -Hydroxytetramethylpropionic acid. See Hydroxyheptioic acids.
- Hydroxytheophyllin (HIRSCH), A., i, 626.
- action of ammonia on (HIRSCH), A., i, 626.
- exo*-Hydroxy-*o*-toluic acid (EINHORN), A., i, 551.
- Hydroxytoluphenoxazone (KEHRMANN and BÜRGIN), A., i, 707.
- Hydroxytrimethylacetic acid (JUST), A., i, 404.
- $\beta$ -Hydroxy- $\alpha\alpha\beta$ -trimethyladipic acid (PERKIN and THORPE), P., 1896, 156.
- $\beta$ -Hydroxy- $\alpha\alpha\beta$ -trimethyladipic acid, lactone of (PERKIN and THORPE), P., 1896, 156.
- $\alpha$ -Hydroxy- $\alpha\beta\beta$ -trimethylglutaric acid, ethylic salt (PERKIN and THORPE), P., 1896, 156.
- $\beta$ -Hydroxy- $\alpha\alpha\beta$ -trimethylglutaric acid, ethylic salt (PERKIN and THORPE), P., 1896, 156.

- $\beta$ -Hydroxy- $\alpha\alpha\beta$ -trimethylglutaric acid, action of the bromides of phosphorus on (PERKIN and THORPE), P., 1896, 156.
- $\alpha\alpha\alpha$ -Hydroxytrimethylglutaric lactone, amide of (AUWERS, SCHIFFER, and SINGHOF), A., i, 643.
- anilide of (AUWERS, SCHIFFER, and SINGHOF), A., i, 643.
- 1-Hydroxy-1':3':3-trimethylisoquinoline: its hydrochloride; oxidation of (COLLIE and WILLSMOORE), T., 302; P., 1896, 47.
- Hydroxytrimethylsuccinanyl (AUWERS and CAMPENHAUSEN), A., i, 525.
- Hydroxytrimethylsuccinic acid (AUWERS and CAMPENHAUSEN), A., i, 525; (KOMPPA and BERGBOH), A., i, 598.
- Hydroxytrimethylsuccinic anhydride, acetyl derivative of (AUWERS and CAMPENHAUSEN), A., i, 525.
- Hydroxytrimethylsuccinotolil and its acetyl derivative (AUWERS and CAMPENHAUSEN), A., i, 525.
- p*-Hydroxytriphenyltetrazolium chloride and its nitrate (WEDEKIND), A., i, 631.
- $\delta$ -Hydroxyvaleric acid (FICHTER and HELBRAND), A., i, 463.
- Hydrozincite from Spain (CESÀRO), A., ii, 479.
- Hygic acid, formation of, from cuskhygrine (LIEBERMANN and CYBULSKI), A., i, 710.
- Hygrophilite from Bavaria (SCHWAGER and GUMBEL), A., ii, 432.
- Hyoscine, formula of and physical constants of salts of (HESSE), A., i, 657.
- Hyoscyamus niger* seed oil, analysis of (MJOEN), A., ii, 506.
- Hypoxanthine, non-occurrence of, in tea extract (KRÜGER), A., i, 450.

## I.

- Ice, dimorphism of (BARENDRECHT), A., ii, 417.
- Ichthyol, estimation of sodium salicylate in (HOFMAN), A., ii, 549.
- Idocrase from Vesuvius and the Matterhorn, and wiluite (JANNASCH and WEINGARTEN), A., ii, 259.
- Iglesiasite from Silesia (TRAUBE), A., ii, 255.
- Ilhuite? from Argentina (SCHICKENDANTZ), A., ii, 480.
- Ilmenite from Bavaria (SCHWAGER and GUMBEL), A., ii, 431.
- from Queensland (LIVERSIDGE), A., ii, 658.

- Ilvaite from Vancouver Island (HOFFMANN), A., ii, 190.
- Imides and Imines. See:—
- Benzoylthiocarbimide.
- iso-Butylthiocarbimide.
- iso-Butyrylthiocarbimide.
- Camphorimide.
- Camphorisoimide.
- $\beta$ -Camphermethylisoimide.
- Diazobenzenimide.
- Dimethylmalonimide.
- Diisopropylsuccinanyl.
- Diisopropylsuccinimide.
- Diisopropylsuccino- $\beta$ -naphthyl.
- Diisopropylsuccino-*p*-tolil.
- Ethylglutaranyl.
- Ethylphthalimide.
- Ethylsuccinimide.
- Formimide.
- Glutaranyl.
- $\beta\beta$ -Glutaranyl.
- $\beta\beta$ -Glutar-*p*-tolil.
- Hemimellitide.
- Heptylthiocarbimide.
- Hydrazimine.
- Hydroxynaphthaquinone-4-imide.
- 2:1:4-Hydroxynaphthaquinonediimide.
- p*-Hydroxyphenylsuccinimide.
- Hydroxytrimethylsuccinanyl.
- Hydroxytrimethylsuccinotolil.
- Maleinanyl.
- Maleinimide.
- Maleinotolil and Maleino-*p*-tolil.
- $\alpha$ -Methylglutaranyl.
- $\alpha$ -Methylglutaro- $\beta$ -naphthyl.
- $\alpha$ -Methylglutarotolil.
- $\alpha$ -Naphthylphthalimide.
- Palmylthiocarbimide.
- Phenacetylthiocarbimide.
- Propionylthiocarbimide.
- Propylthiocarbimide.
- Stearylthiocarbimide.
- Succinanyl and  $\alpha\alpha$ -Succinanyl.
- Succinethylimide.
- Succino- $\alpha$ -naphthyl.
- Succino- $\beta$ -naphthyl.
- $\alpha\alpha$ -Succino- $\beta$ -naphthyl.
- $\alpha\alpha$ -Succino-*p*-tolil.
- Pyrotartarimide.
- Pyrotartaronaphthyl.
- Tetramethyldiphenylimide.
- Tetramethylsuccino- $\beta$ -naphthyl.
- Tetramethylsuccino-*p*-tolil.
- Thiethylimine.
- Imidocarbonic acid, ethylic salt of (HANTZSCH and MAI), A., i, 34.
- phenylic salt of (HANTZSCH and MAI), A., i, 34; (NEF), A., i, 75.
- p*-bromophenylic salt of (HANTZSCH and MAI), A., i, 33.
- phenylic ethylic salt of (NEF), A., i, 75.



- Imidocarbonic acid, bromo-, ethylic salt of (HANTZSCH and MAT), A, i, 34.  
 cyano-, ethylic salt of (NEF), A., i, 71, 72.  
 Imidoformyl chloride and its compound with hydrogen cyanide (NEF), A., i, 76.  
 cyanide (NEF), A., i, 76.  
 Imido-oxalic acid. See Oxalic acid, imido-.  
 Imidosuccinic acid. See Succinimide.  
 Imine,  $C_{14}H_{27}N$ , from methylcyclohexenonoxime, the nitrate (WALLACH), A., i, 310.  
 Iminosulphonic acid. See under Sulphur.  
*iso*-Indazole, 1'-acetyl derivative of (AUWERS and EWING), A., i, 504.  
 Indene, magnetic rotatory power, &c., of (PERKIN), T., 1083, 1144, 1153, 1196, 1197, 1230, 1242.  
 Indian geranium, oil of. See *Andropogon schœnanthus*.  
 Indican in urine (DAIBER), A., ii, 491.  
 presence of, in tumours (NEPVEU), A., ii, 319.  
 Indium and gallium in blende from New South Wales (KIRKLAND), A., ii, 183.  
 Indigo-carmine, detection of, in wines (BELAR), A., ii, 630.  
*Indigoferæ*, formation of indigo in plants of the (VAN LOOKEREN and VAN DER VEEN), A., ii, 207.  
 Indigotin, formation of, in plants of the *Indigoferæ* (VAN LOOKEREN and VAN DER VEEN), A., ii, 207.  
 formation of, from benzylidene-*o*-nitroacetophenone (ENGLER and DORANT), A., i, 49.  
 fluorescence of gaseous (WIEDEMANN and SCHMIDT), A., ii, 86.  
 the red isomeride of (SCHUNCK and MARCHLEWSKI), A., i, 96.  
 Indileucin, acetyl derivative of (SCHUNCK and MARCHLEWSKI), A., i, 96.  
 Indole, presence of, in tumours (NEPVEU), A., ii, 319.  
 Indole-2'-carboxylic acid, 1'-amino-, ethylic salt of (REISSERT), A., i, 391.  
 1'-nitro- (REISSERT), A., i, 390.  
 Indophenazine (SCHUNCK and MARCHLEWSKI), A., i, 96, 236.  
 1:3-*di*bromo-, and its 1'-acetyl derivative (SCHUNCK and MARCHLEWSKI), A., i, 236.  
*m*-chloro-, and its acetyl compound and silver salt (SCHUNCK and MARCHLEWSKI), A., i, 96.  
 Indophenazine, nitro-, and its 1'-acetyl derivative (SCHUNCK and MARCHLEWSKI), A., i, 236.  
 Indophenols, absorption spectra of (BAYRAC and CAMICHEL), A., ii, 345.  
 Indoxin (REISSERT), A., i, 390.  
 Indoxylglycuronic acid in urine (DAIBER), A., ii, 491.  
 Induline, discovery of (HOFMANN LECTURE), T., 622.  
 Induline (m. p. 286—288°): its acetate, hydrochloride, and hydrobromide (FISCHER and HEPP), A., i, 325.  
 Indulines, nomenclature of (JAUBERT), A., i, 326.  
 classification of (FISCHER and HEPP), A., i, 51.  
 Inesite from Sweden (HAMBERG), A., ii, 308.  
 Infusoria, poisonous action of various chemical substances on (BOKORNY), A., ii, 669.  
 Intestinal juice, action of, on trehalose, cane sugar, and maltose (BOURQUELOT and GLEY), A., ii, 315.  
 characters of, in sheep (PREGEL), A., ii, 49.  
 paralytic, properties of (MENDEL), A., ii, 617.  
 Intestine, absorption of fat by (LEVIN), A., ii, 376.  
 absorption of peptone by the (REID), A., ii, 318.  
 absorption of proteids from the (FRIEDLÄNDER), A., ii, 536.  
 influence of nerves on absorption from the (REID), A., ii, 663.  
 small, digestion of lactose in (RÖHMANN and LAPPE), A., ii, 43.  
 Inversion, mechanism of (ARMSTRONG), P., 1896, 46.  
 of cane sugar by salts (LONG), A., ii, 414.  
 Invertebrates, marine, respiratory exchange in (VERNON), A., ii, 195.  
 Invertin, action of heat on (ROUSSY), A., ii, 121.  
 Inulin, action of oxalic acid on (DÜLL), A., i, 120, 121.  
 Inulin of garlic, identity of, with the inulin of hyacinth, narcissus, and tuberose (CHEVASTELON), A., i, 5.  
 Iodargyrite from Broken Hill, N.S.W. (SMITH), A., ii, 30.  
 Iodine, occurrence of, in waters (LECCO), A., ii, 579.  
 absorption spectrum of solutions of, in carbon bisulphide vapour (WOOD), A., ii, 458.  
 rate of sublimation of (ARCTOWSKI), A., ii, 636.

Iodine, partition of, between two solvents (JAKOWKIN), A., ii, 295.  
 partition of, between salt solutions and carbon bisulphide and tetrachloride (JAKOWKIN), A., ii, 514.  
 presence of, in thymus gland (BAUMANN), A., ii, 487.  
 presence of, in the thyroid gland (BAUMANN), A., ii, 263; (BAUMANN and ROOS), A., ii, 487.  
 percentage of, in the thyroid gland (BAUMANN), A., ii, 487.  
 presence of, in skeleton of Gorgonia (DRECHSEL), A., ii, 378.  
 reaction of, with dilute ammonia solution of (CHATTAWAY), T., 1577; P., 1896, 173.  
 Hydrogen iodide, preparation of (KASTLE and BULLOCK), A., ii, 357.  
 liquid, properties of (NORRIS and COTTRELL), A., ii, 357.  
 gaseous, action of, on salts of elements of the fifth group (SMITH and MEYER), A., ii, 165.  
 action of carbonyl chloride on (BESSON), A., ii, 358.  
 action of sulphuric chloride on (BESSON), A., ii, 417.  
 rate of oxidation of (WARDER), A., ii, 297.  
 velocity of the reaction between bromic acid and (NOYES and SCOTT), A., ii, 158.  
 velocity of the reaction between hydrogen peroxide and (NOYES and SCOTT), A., ii, 158; (HARCOURT and ESSON), A., ii, 238.  
 estimation of soluble, volumetrically (RIEGLER), A., ii, 573.  
 Iodic acid, action of magnesium on solutions of (VITALI), A., ii, 420.  
 compounds of molybdic, tungstic, and phosphoric acids with (CHRÉTIEN), A., ii, 652.  
 Iodine, detection of, by dichlorobenzene-sulphonamide (KASTLE), A., ii, 216.  
 detection of, in organic compounds (RAIKOW), A., ii, 70.  
 detection of small quantities in presence of chlorine and bromine (LUDWIG), A., ii, 542.  
 estimation of, electrolytically (VORTMANN), A., ii, 71.  
 estimation of, in organic compounds (SCHUYTEN), A., ii, 71.  
 Iodo-derivatives. See:—  
 Acetone.  
 Acetylene.

Iodo-derivatives. See:—  
 Aniline.  
 Anisidine.  
 Anisole.  
 Azobenzenes.  
 Azoxybenzene.  
 Benzaldehyde.  
 Benzsynaldoxime.  
 Benzene.  
 Benzoic acid.  
 Diazobenzenethiophenyl ether.  
 2 : 4-Dihydroxyacetophenone.  
 $\beta$ -Ethoxy- $\beta$ -phenylpropionic acid.  
 Ethylene.  
 Ethylideneecyclopropane.  
 Ethylcyclopropane.  
 Ethyltrimethylene.  
 Formanilide.  
 Gorgonic acid.  
 Hexahydrotoluene (*methylcyclohexane*).  
 Hippenylcarbanil.  
*p*-Hydroxybenzaldehyde.  
 Methanedisulphonic acid.  
 $\beta$ -Methoxy- $\beta$ -phenylpropionic acid.  
 Methylidiphenyl.  
 Methylisovaleric acid.  
 Naphthalene.  
 Pentadecic acid.  
 Penthiazoline.  
 Phenol.  
 $\beta$ -Phenylhydracrylic acid.  
 $\beta$ -Phenylpropionic acid.  
 Phthalic and *iso*-Phthalic acids.  
 Phthalic anhydride.  
 Phthalimides.  
 Propionic acid.  
 Propylene.  
*iso*-Quinoline.  
 Terephthalic acid.  
 Thienyltriphenylmethane.  
 Toluene.  
 Tolyketoidene.  
 Trimethylpropionic acid.  
 Veratrol.  
 Xylidine.  
 Iodoso-derivatives. See:—  
 Benzaldehyde.  
 Benzoic acid.  
 Iodoxy-derivatives. See:—  
 Benzaldehyde.  
 Benzene.  
 Naphthalene.  
 Toluene.  
 Iodyrite. See Iodargyrite.  
 Ion, atom and molecule, relation between the colours of (LEA), A., ii, 639.  
 Ionisation of metals, heat of (JAHN), A., ii, 230, 231.  
 Ionisation. See Electrolytic dissociation.  
 Ions, connection between the conduc-

- tivity of a vapour for heat and the velocity of its (BREIDIG), A., ii, 348.
- Ions, periodicity of the colour of (THOMSEN), A., ii, 16.
- Ipecacuanha, alkaloids of (PAUL and COWNLEY), A., i, 192; (CRIPPS), A., i, 395.
- estimation of (CRIPPS), A., ii, 284.
- Ipecacuanha root, non-existence of cephaeline in one sample of (CRIPPS), A., i, 396.
- Ipomæa turpethum*, turpethin the active constituent of (KROMER), A., i, 386.
- Iresine, red dye of leaves of (WEIGERT), A., i, 388.
- Iridium, solubility of carbon in (MOISSAN), A., ii, 610.
- Iridium bases:—
- Iridioaquopentamine bromide and chloriridite (PALMAER), A., ii, 180, 181.
  - Iridiohexamine, hydroxide, chloride, and other salts (PALMAER), A., ii, 181.
  - Iridiopentamine bromobromide, chlorochloride, chlorochloriridite, chlorodithionate, chlorhydroxide, chloroxalate, acid chlorosulphate, iodoiodite, nitratonitrite (PALMAER), A., ii, 180, 181.
- Iron, native terrestrial, from Ontario (HOFFMANN), A., ii, 259.
- effect of, on absorption spectra of hæmoglobin and allied compounds (GAMGEE), A., i, 714.
  - action of steel on a photographic plate of (PELLAT), A., ii, 601.
  - condition of the carbon in (DONATH), A., ii, 563.
  - constituents of steel (OSMOND), A., ii, 172.
  - absorption of, by living body (WOLTERING), A., ii, 197.
  - absorption of, from alimentary canal (GEORGENBURGER), A., ii, 485.
  - absorption and excretion of (TIRMANN), A., ii, 487.
  - amount of, in food (STOCKMAN), A., ii, 43.
  - inorganic, as a source of hæmoglobin (KUNKEL), A., ii, 47.
  - storage of, in the liver and spleen (STOCKMAN), A., ii, 438.
  - effect of deprivation of, in dogs (STOCKMAN), A., ii, 264.
  - compounds containing, in animal and vegetable cells (MACALLUM), A., ii, 317.
  - absorption of helium by (TILDEN), A., ii, 656.
  - introduction of tungsten and titanium into steel (MOISSAN), A., ii, 602.
- Iron-alloys with antimony, specific gravity and specific heat of (LABORDE), A., ii, 652.
- ferrochromium, analysis of (RIDEAL and ROSENBLUM), A., ii, 276.
- with molybdenum, tungsten, and chromium (BENNEVILLE), A., ii, 174.
- with vanadium (MOISSAN), A., ii, 609.
- Iron amidosulphonates. See Ferrous and Ferric amidosulphonates.
- chlorides. See Ferrous and Ferric chlorides.
- chromium carbides (BENNEVILLE), A., ii, 175.
- hydroxide, electrochemical preparation of (LORENZ), A., ii, 647.
- magnetic, from Silesia (KOSMANN), A., ii, 431.
- nitrate. See Ferric nitrate.
- nitrosodisulphonate. See Ferric disulphonate.
- nitrososulphides (MARIE and MARQUIS), A., ii, 364.
- oxides, action of carbon dioxide on (BRAITHWAITE), A., ii, 173.
- reduction of, by carbon monoxide (BRAITHWAITE), A., ii, 173.
- oxide. See further Ferric oxide.
- phosphate. See Ferrous phosphates, &c.
- phosphide (GRANGER), A., ii, 651.
- sesquiphosphide (GRANGER), A., ii, 476.
- silicide (MOISSAN), A., ii, 173.
- silicides (CHALMOT), A., ii, 302.
- basic sulphate of, from Queensland (COOKSEY), A., ii, 480.
- sulphates. See Ferrous and Ferric sulphates.
- sulphide, electrochemical preparation of (LORENZ), A., ii, 648.
- compound of, with carbon bisulphide and ammonia (WIEDE and HOFMANN), A., ii, 364.
- pyrites, constitution of (BROWN), A., ii, 108.
- estimation of sulphur in (ASBOTH), A., ii, 71; (KELLER and MAAS; LUNGE), A., ii, 498; (GLADDING), A., ii, 622.
  - estimation of pyrrhotite in (CONE), A., ii, 543.
- double sulphide of gold and (MACLAURIN), T., 1274; P., 1896, 149.
- tellurite from Cripple Creek, Colorado (KNIGHT), A., ii, 613.
- Ferric acid, salts of (ROSELL), A., ii, 175.
- Ferric salts, action of, on iodides in aqueous solution (KÜSTER), A., ii, 302.

- Iron, Ferric salts, action of magnesium on solutions of (VITALI), A., ii, 420.
- Ferric amidosulphonate (DIVERS and HAGA), T., 1647.
- chloride, action of light on a solution of oxalic acid and (LEMOINE), A., ii, 285.
- velocity of the reaction between stannous chloride and (NOYES and SCOTT), A., ii, 158.
- hydrolytic decomposition of (ANTONY and GIGLIO), A., ii, 250.
- compounds of, with ammonia (MILLER), A., ii, 26.
- hydrated, absorption of moisture by (HAKE), P., 1896, 34.
- nitrate, hydrolysis of (ANTONY and GIGLI), A., ii, 604.
- hydroxide, action of oxalic acid on (ROSENHEIM), A., i, 280, 348.
- nitrosodisulphonate (SABATIER), A., ii, 642.
- oxide, solution of ignited (BORNTRÄGER), A., ii, 502.
- influence of, on the reversion of superphosphate (SMETHAM), A., ii, 364.
- sulphate, hydrolysis of (ANTONY and GIGLI), A., ii, 604.
- Ferrous amidosulphonates (DIVERS and HAGA), T., 1647.
- chloride, compounds of, with ammonia (MILLER), A., ii, 27.
- compounds of, with nitric oxide (THOMAS), A., ii, 26.
- sodium triphosphate (STANGE), A., ii, 643.
- thiopyrophosphate (FERRAND), A., ii, 473.
- thiophosphite (FERRAND), A., ii, 418.
- sulphate, solubility of isomorphous mixtures of copper sulphate and (STORTENBEKER), A., ii, 14.
- aluminium sulphate, occurrence of, on bricks exposed to sulphurous anhydride (PATERSON), T., 66; P., 1895, 203.
- cæsium sulphate, density and optical behaviour of (TUTTON), T., 396.
- potassium sulphate, density and optical behaviour of (TUTTON), T., 387.
- rubidium sulphate, density and optical behaviour of (TUTTON), T., 391.
- Iron ore from Servia (LOZANIĆ), A., ii, 252.
- Iron ores, estimation of arsenic in (STEAD), A., ii, 390.
- estimation of manganese in (MIXER and DU BOIS), A., ii, 547.
- estimation of phosphorus in, in presence of titanium (PATTINSON and PATTINSON), A., ii, 389.
- Iron, detection and estimation of:—
- autopneumatic stirrer for copper ammonium chloride treatment in steel analysis, (BREARLEY), A., ii, 71.
- detection of, microchemically (SCHRÖDER VAN DER KOLK), A., ii, 574.
- estimation of, colorimetrically (LUNGE), A., ii, 392.
- estimation of, electrolytically (NICHOLSON and AVERY), A., ii, 627.
- estimation of, in ores (WELLS and MITCHELL), A., ii, 502.
- estimation of, in aluminium (MOISSAN), A., ii, 339.
- estimation of arsenic in pig iron, (STEAD), A., ii, 390.
- estimation of arsenic in steel (STEAD), A., ii, 390.
- estimation of carbon in (PREPERS), A., ii, 449.
- estimation of carbon in steel (BLAIR), A., ii, 544.
- estimation of graphite in pig iron (SHIMER), A., ii, 499.
- estimation of manganese in steel, errors in (AUCHY), A., ii, 627.
- estimation of nickel in steel (BREARLEY), A., ii, 676.
- estimation of phosphorus in, in presence of titanium (PATTINSON and PATTINSON), A., ii, 389.
- estimation of sulphur in, apparatus for (READ), A., ii, 274.
- estimation of sulphur in pig iron (AUCHY), A., ii, 543; (BOUCHER), A., ii, 671.
- estimation of sulphur in white cast iron (PHILLIPS), A., ii, 498.
- estimation of sulphur in steel (BOUCHER), A., ii, 671.
- separation of, qualitatively from chromium (GIACOMELLI), A., ii, 128.
- separation of, qualitatively, from nickel, chromium, cobalt, manganese, aluminium, and zinc (HARE), A., ii, 127.
- separation of arsenic from (JANNASCH and KAMMERER), A., ii, 221.
- separation of, from beryllium (ATKINSON and SMITH), A., ii, 220.

Iron, separation of chromium from (JANNASCH and VON CLOEDT), A., ii, 222.  
 separation of nickel from (BREARLEY), A., ii, 676.  
 Isanic acid (HÉBERT), A., i, 638.  
 action of bromine and of oxygen on (HÉBERT), A., i, 638, 639.  
 I'Sano seeds, fatty acids from (HÉBERT), A., i, 638.  
 Isatin, condensation of, with *o*-phenylenediamine (SCHUNCK and MARCHLEWSKI), A., i, 96.  
 action of nitrous acid on (HOFMANN LECTURE), T., 699.  
 nitration of (HOFMANN LECTURE), T., 647.  
 Isatin, *m*-chloro-, condensation of, with *o*-phenylenediamine (SCHUNCK and MARCHLEWSKI), A., i, 96.  
 Isatinacetylphenylmethylhydrazone (SCHUNCK and MARCHLEWSKI), A., i, 96.  
 Isatin- $\beta$ -naphthylhydrazone (SCHUNCK and MARCHLEWSKI), A., i, 96.  
 Isatinphenylmethylhydrazone (SCHUNCK and MARCHLEWSKI), A., i, 96.  
 Isatinsemicarbazone (MARCHLEWSKI), A., i, 449.  
*p*-chlor- (MARCHLEWSKI), A., i, 449.  
 nitro- (MARCHLEWSKI), A., i, 449.  
 Isatohydrophenazine. See Indophenazine.  
 Isomerides, optically active and inactive, molecular weights of (TEAUBE), A., i, 526.  
 optical, physical properties of (WALDEN), A., ii, 553.  
 Isomerism, position, influence of, on optical activity (FRANKLAND and WHARTON), T., 1583; P., 1896, 186.  
 effect of, on rotatory power (FRANKLAND and WHARTON), T., 1320; P., 1896, 148.  
 Isomorphous mixtures, solubility of (STORTENBEKER), A., ii, 13.  
 Isonitriles, alkylic, preparation of (HOFMANN LECTURE), T., 663.  
 Isophthalic acid. See Phthalic acids.  
 Itaconic acid, sublimation temperature under small pressure of (KRAFFT and DYES), A., ii, 89.  
 amylic salt, rotatory power of (WALDEN), A., ii, 633.  
 ethylic salt, action of alcoholic ammonia on (KORNER and MENOZZI), A., i, 205.

## J.

Jadeite from Burma (FARRINGTON), A., ii, 311; (BAUER), A., ii, 311.  
 from "Tibet" (BAUER), A., ii, 310.  
 Jalap resin, estimation of (SPAETH), A., ii, 508.  
 Jalapic acid and salts (KROMER), A., i, 385.  
 Jalapin, identity of, with scammonin, and properties of (KROMER), A., i, 385.  
 Jalapinolic acid (KROMER), A., i, 386.  
 Jams, estimation of glucose in (MAYRHOFER), A., ii, 225.  
 Jecorin in the liver of the dolphin (DRECHSEL), A., ii, 378.  
 Johnstonite from Broken Hill, N.S.W. (SMITH), A., ii, 30.  
*Juglans regia*, proteids of (OSBORNE and CAMPBELL), A., i, 716.  
 Juices, composition of pure fruit (KREMLA), A., ii, 62.

## K.

*Kadsura japonica*, occurrence of galactan and araban in (YOSHIMURA), A., ii, 60.  
 Kainite, effect of, on yield and composition of grass (MARCKER), A., ii, 271.  
 Kaliborite, formula of (KOSMANN), A., ii, 368.  
 Kaolin after malachite from Russia (JEREMÉEFF), A., ii, 566.  
 Kauaite from Hawaii (GOLDSMITH), A., ii, 35.  
 Kentrolite from Jakobsberg, Sweden (NORDENSIÖLD), A., ii, 257.  
 from Långban, Sweden (FLINK), A., ii, 186.  
 Keratophyre, quartz-, from Wisconsin (WEIDMANN), A., ii, 314.  
 Kermes berries, compound obtained from, and its acetyl and benzoyl derivatives (HILGER and MAI), A., i, 496.  
 Kermesite (BAUBIGNY), A., ii, 31.  
 Ketazines (CURTIUS), A., i, 339.  
*iso*-Ketocamphoric acid from oxidation of pinonic and  $\alpha$ -pinonic acids (TIEMANN and SEMMLER), A., i, 309.  
 Ketodihydrophenotriazine-4'-oxime and its hydrochloride (PINNOW and SAMANN), A., i, 366.  
 Ketoglycol,  $C_{16}H_{18}O_3$ , from dihydrocarvone: its oxime and semicarbazone (WALLACH), A., i, 102.  
 Ketoexamethylenecarboxylic acids. See *cyclo*-Hexanonecarboxylic acids.

- Ketohydrazones (CURTIUS), A., i, 339.
- Ketoketoximebehenic acid (SPIECKERMANN), A., i, 410.
- Ketone obtained by oxidation of bromisoanethoil; and its compounds with ammonia and with potassium acetate (HELL and GAAB), A., i, 293.
- obtained by reduction of secondary nitrodiisamyls (KONOWALOFF and NIKITIN), A., i, 673.
- from the ketoglycol derived from dihydrocarvone and its semicarbazone (WALLACH), A., i, 102.
- Ketone,  $C_8H_{14}O$ , derived from dihydrociscampholytamide (NOYES), A., i, 696.
- $C_9H_{14}O_2$ , from dihydrocarvone: its oxime and semicarbazone (WALLACH), A., i, 102.
- $C_9H_{16}O$ , from oxidation product of pulegic acid, and its carbazone, and oxime (WALLACH), A., i, 311.
- $C_{10}H_9O_2Br_3$ , from dibromanethoil dibromide. See Anethoil dibromide.
- $C_{10}H_{10}O_2Br_2$ , from bromanethoil dibromide, and its aniline derivative (HELL and GÜNTHERT), A., i, 20.
- $C_{10}H_{10}O_3$ , from *isosaftrole*, and its oxime (WALLACH and POND), A., i, 95.
- $C_{10}H_{11}O_2Br$ , from anethoil dibromide, and its ammonia derivative (HELL and GÜNTHERT), A., i, 21.
- $C_{10}H_{14}O_4$ , from *iso*-amylacetylacetone and its sodium hydroxide (BARBIER and BOUVEAULT), A., i, 638.
- $C_{10}H_{16}O$ , from pinole tribromide: its oxime and semicarbazone (WALLACH), A., i, 102.
- $C_{10}H_{16}O$ , from methylcyclohexenone and acetone (WALLACH), A., i, 572.
- $C_{10}H_{18}O$ , from phellandrene nitrite: its *d*-oxime and semicarbazone (WALLACH and HERBIG), A., i, 101.
- $C_{12}H_{16}O_3$ , from methylisoeugenol, and its oxime and semicarbazone (WALLACH and POND), A., i, 95.
- $C_{14}H_{22}O$ , from methylcyclohexenone: its hydrochloride, hydrobromide, and oxime (WALLACH), A., i, 572.
- $C_{17}H_{16}O$ , formed by condensation of cinnamylidenacetone with benzaldehyde (SCHOLTZ), A., i, 368.
- Ketone-alcohol,  $C_{10}H_{18}O_2$ , from the oxidation of menthene (TOLLOZKO), A., i, 381.
- Ketone-group of natural dye stuffs (PERKIN), T., 1410; P., 1896, 167.
- Ketones from *isoeugenol* ethyl and methyl ether dibromides (HELL), A., i, 169.
- formation of, by union of water with acetylene hydrocarbons (DESGREZ), A., i, 2.
- ortho-, action of hydrazine on (CURTIUS), A., i, 339.
- action of zinc and ethylic chloracetate on (REFORMATSKY), A., i, 128.
- reduction of, by aluminium (WISLICENUS), A., i, 672.
- bromo-, from anethoil dibromide and bromanethoil dibromide (HELL), A., i, 170.
- Ketones and Quinones. See also:—
- Acenaphthenone.
- Acetomesitylene.
- Acetone.
- Acetonyl-*o*-benzoic sulphinide.
- Acetophenone.
- Acetophenone, cyano-.
- Acetylacetone.
- Acetylbenzyl methyl ketone.
- Acetylbisnitrosodimethylnaphthalene.
- Acetyldihydrodiduroquinone.
- Acetyldihydroxydimethylnaphthalene.
- Acetyldihydroxyflavone.
- Acetyldiduroquinone.
- Acetyldurene and Acetylisodurene.
- Acetylhydroxyquinolinequinone.
- Acetylmesitylene.
- Acetylpentamethylbenzene.
- Acetylphorone.
- Acetylisopropylketopentamethylene.
- Adipinketone.
- Anhydroglycopyrogallol.
- Anhydroglycoresorcinol.
- Anilidotoluquinone.
- Anisic acetone.
- Anisyl ethyl ketone.
- Anthraquinone.
- Azoxypheyl-*p*-tolyl ketone.
- Benzophenone.
- Benzopinacolin.
- Benzoylbenzoylacetomethane.
- Benzoylcoumarone.
- Benzoyldiacetylmetane.
- Benzoyldiduroquinone.
- Benzoylmesitylene.
- Benzoyl-3-methyl-5-isobutyl- $\Delta_2$ -cyclohexenone.
- Benzoyl-3-methyl-5-hexyl- $\Delta_2$ -cyclohexenone.
- Benzoylmethylic phenylic ether.
- Benzoylmethylresorcinol.
- Benzoylvanillin.
- Benzoylveratrole.

Ketones and Quinones. See:—

Benzyl methyl ketone.  
 Benzylidesmotroposantonin.  
 1' : 3'-Benzylethylphthalazone.  
 Benzylideneacenaphthenone.  
 Benzylideneacetone.  
 Benzylideneacetophenone.  
 Benzylideneanhydroglycogallol.  
 Benzylidenediacetophenone.  
 Benzylidene-eucarvone.  
 Benzylidenementhone.  
 Benzylidenemethylhexenone.  
 Benzylidenemethylketoisoxalone.  
 Benzylidenecyclopentanones.  
 Benzylidenepulegone.  
 Benzylidenetriacetophenone.  
 1' : 3'-Benzylmethylphthalazone.  
 Benzylrosindone.  
 1'-*iso*-Butylphthalazone.  
 Camphenone.  
 Camphor.  
 Camphorone.  
 Camphorquinone.  
 Chloranil.  
 Chrysoketone.  
 Coumarone  
 Cymophenone and *p*-Cymoquinone.  
 Desylacetophenone.  
 Diacenaphthylidenone.  
 Diacetophenone.  
 Diacetyl dicyanide.  
 Diacetylacetone.  
 Diacetyldianthranol.  
 Diacetyldurene.  
 Diacetylsodurene.  
 Diacetylmesitylene.  
 Diacetylresacetophenone.  
 Diallylacetone.  
 Diisoamylaminoacetone.  
 Diamyloxyquinone.  
 Dianilidotoluquinone.  
 Dianisylidenecyclopentanone.  
 Diazoacetophenone.  
 Diazopiperonylacetone.  
 $\alpha$ - and  $\beta$ -Dibenzoylacetylmethanes.  
 Dibenzoylbisphenylenemethylpyrazolone.  
 Dibenzoylmesitylene.  
 Dibenzoylphenylmethane.  
 Dibenzylidenecyclohexanone.  
 Dibenzylidenemethylhexenone.  
 Dibenzylidenemethylpentenone.  
 Dibenzylidenesuberone.  
 Dibenzylidenetriacetophenone.  
 Dibenzylloxyquinone.  
 Diisobutylaminoacetone.  
 Diisobutyl ketone.  
 Dibutyryl.  
 Dicinnamylidenecyclopentanone.  
 Diduroquinone.  
 3 : 3-Diethoxybenzophenone.

Ketones and Quinones. See:—

Diethoxybenzylidenetriacetophenone.  
 3 : 3-Diethoxy-4 : 4-dimethylbenzophenone.  
 Diethyl diketone.  
 Diethyl ketone.  
 Difurfurylidenecyclohexanone.  
 Difurfurylidenecyclopentanone.  
 Difurfurylidenetriacetophenone.  
 Dihydrohippuroflavin.  
 Dihydroxyacetophenone.  
 Dihydroxybenzophenone.  
 Dihydroxyflavone.  
 Dihydroxy- $\beta$ -naphthaquinone.  
 Diketone from quercitol.  
 Diketopiperazine.  
 Dimesityldinitrosacyl.  
 3 : 3-Dimethoxybenzophenone.  
 Dimethyl ketone.  
 Dimethylacetylacetone.  
 Dimethylaminoacetone.  
 Dimethylbenzoylpropionic acid.  
 2 : 5-Dimethylhexan-3-ol-4-one.  
 1 : 3-Dimethylcyclohexanone.  
 Dimethylnaphthol.  
 1 : 3-Dimethylcyclopentanone.  
 Diphenacyl.  
 Diphenacyl ethylene diketone.  
 Diphenoxiquinone.  
 Diphenylacetophenone.  
 Diphenyldimethyltetrahydro- $\gamma$ -pyrone.  
 Diphenyldiphenylenepinacolin.  
 Diphenylene ketones.  
 4 : 5-Diphenyl-2 : 7-octanedione.  
 Diphenyloxetone.  
 Diphenylcyclopentenone.  
 1 : 3-Diphenylisotetrazolone.  
 Dipiperonaltriacetophenone.  
 Dipropionyl.  
 Dipropionylidurene.  
 Dipropionylmesitylene.  
 4 : 4-Dipropoxybenzophenone.  
 Dipropyl ketone.  
 Diisopropyl ketone.  
 Dipropylaminoacetone.  
 Di-*p*-tolyl benzylidenedimethyl diketone.  
 Di-*p*-tolyl furfurylidenedimethyl diketone.  
 Diisovaleryl.  
 Duroquinone.  
 Ethoxybenzylideneacetone.  
 Ethoxybenzylideneacetophenone.  
 2 : 5-Ethoxyphenyl-3 : 4-dithiobiazolone.  
 Ethyl *iso*-propyl ketone.  
 Ethylbenzoylpropionic acid.  
 Fenchone.  
 Furfurylidenacetophenones.  
 Gallacetophenone.

## Ketones and Quinones. See:—

*cyclo*-Hexanone-1-carboxylic acid.  
 Hippuroflavin.  
 Hydracetylacetone.  
 Hydrindone.  
 Hydrolapachol.  
*o*- and *p*-Hydroxybenzophenones.  
 Hydroxybenzylideneacetophenone.  
 Hydroxydihydrocarvone.  
 Hydroxydimethoxycoumarincarboxylic acid.  
 1-Hydroxy-1 : 2-diphenylcyclopentan-4-one.  
 Hydroxyhydrolapachol.  
 Hydroxyisalapachol.  
 Hydroxylapachone.  
 $\beta$ -Hydroxy- $\alpha$ -naphthaquinone.  
*p*-Hydroxyphenyl *p*-tolyl ketone.  
 Hydroxyphenylethyl propyl ketone.  
 Hydroxystyryl propyl ketone.  
 $\alpha$ -Keto- $\beta$ -pentene.  
 Ketopiperazine.  
 Lapachol.  
 Lapachone.  
 Menthone.  
 Mesityl methyl ketone.  
 Mesitylic oxide.  
*o*-Methoxybenzophenone.  
 Methoxyphenyl ethyl ketone.  
 Methoxyphenylketotetrahydroquinazoline.  
 Methyl benzamidobutyl ketone.  
 Methyl butyl ketone.  
 Methyl *iso*-butyl ketone.  
 Methyl *sec*-isobutyl ketone.  
 Methyl ethyl ketone.  
 Methyl hexyl ketone.  
 Methyl hydroxyethyl ketone.  
 Methyl propenyl ketone.  
 Methyl propyl ketone.  
 Methyl isopropyl ketone.  
 Methyl propylidenethyl ketone.  
 Methylamylaminoacetone.  
 Methylbenzoylpropionic acid.  
 Methylbutylaminoacetone.  
 1-Methyl-3-isobutylcyclohexanone.  
 3 : 5-Methylisobutyl- $\Delta_2$ -cyclohexanone.  
 Methylisobutylketopentamethylene.  
 Methylheptenone.  
 1-Methylcyclohexanone.  
 Methylcyclohexenone.  
 3-Methyl-5-hexyl- $\Delta_2$ -cyclohexenone.  
 $\beta$ -Methylketopentamethylene.  
 Methylketoisoxalone.  
 1-Methyl-3-isopropylcyclohexanone.  
 3-Methyl-5-isopropyl- $\Delta_2$ -cyclohexanone.  
 Naphthaquinonecarboxylic acid.  
 Nopinone.  
 Peonol.

## Ketones and Quinones. See:—

Phenacyl bromide.  
 Phenacyl-*o*-benzoisulphinide.  
 Phenetylketotetrahydroquinazoline.  
 Phenyl  $\alpha$ -coumaryl ketone.  
 Phenyl *m*-ethoxystyryl ketone.  
 Phenyl ethyl ketone.  
 Phenyl hydroxystyryl ketones.  
 Phenyl styryl ketone.  
 Phenyl tolyl ketones.  
 Phenyl *p*-tolyl phenylene diketone.  
 Phenyl *m*-xylol ketone.  
 Phenyl *o*-xylol ketone.  
 Phenyl *p*-xylol ketone.  
 Phenylacetone (*benzyl methyl ketone*).  
 5-Phenyl-3 : 4-dithiobiazolone.  
 Phenylketotetrahydroquinazoline.  
 Phenylmethylketotetrahydropyridazinocarboxylic acid.  
 Phenylpropyltetrahydroazindone.  
 4-Phenylquinazoline.  
 4'-Phenyltetrahydroquinazoline.  
*iso*-Phorone.  
 Pinacolin.  
 Piperonalacetophenone.  
 Piperonylacetone.  
 Propionylidurene.  
 Propionylmesitylene.  
*iso*-Propylbenzoquinone.  
*iso*-Propylbenzoylpropionic acid.  
*iso*-Propylfurfuran-naphthaquinone.  
*iso*-Propylheptanonic acid.  
 1'-Propylphthalazone.  
 Pulegone.  
 Resacetophenone.  
 Styryl methyl ketone.  
 Tetracetylene.  
 Tetrahydroacetophenone.  
 1- $\beta$ -Tetranaphthyl-3-cyanotrimethyl-piperidone.  
 Tetraphenoxyquinone.  
 Tetraphenylene-pinacolin.  
*o*- and *m*-Toluidotoluquinones.  
 Toluquinone.  
*p*-Tolyl  $\alpha$ -coumaryl ketone.  
*p*-Tolyl furfurylidenemethyl ketone.  
*p*-Tolyl *o*-hydroxystyryl ketone.  
*p*-Tolyl styryl ketone.  
 Tolyketoidene.  
 Tribenzoylmethane.  
 Trihydroxybenzophenone.  
 Trihydroxyanthone.  
 Trimethoxycoumarin.  
 Trimethoxycoumarincarboxylic acid.  
 1' : 3' : 3'-Trimethyl-2'-indolinone.  
 Trimethylketoexamethylene.  
 Tri-*p*-tolylidibenzylidenetrimethyltriketone.  
 Tropinone.  
 Tropinonecyanhydrin.  
*iso*-Valerophenone-*o*-carboxylic acid.



Ketones and Quinones. See:—

Xanthone.

*m*-Xyloquinone.

*p*-Xylyl ketone.

Ketonic acids, ethereal salts of, action of hydrazine on (CURTIUS), A., i, 339.

$\alpha$ -Keto- $\beta$ -pentene, hexachloro-, reversible conversion of, into hexachloro- $\alpha$ -keto- $\gamma$ -pentene (KÜSTER), A., ii, 158.

Ketopinic acid, its methylic, barium, and calcium salts, hydrazone, and oxime (ARMSTRONG), P., 1896, 167; T., 1401.

$\alpha\gamma$ -Ketopyrhydrindenecarboxylic acid,  $\beta$ -dichloro-, and its methylic salt (ZINCKE and WINZHEIMER), A., i, 500.

Ketostearamide, hydrolysis of (BEHREND), A., i, 410.

Ketostearic acid (BEHREND), A., i, 410.

bromo- (BEHREND), A., i, 410.

chloro-, reduction of (BEHREND), A., i, 410.

oxime of (BEHREND), A., i, 410.

Ketoterpine from hydroxycarone (VON BAEYER), A., i, 246.

Kidney, causes of secretion by the (TAMANN), A., ii, 618.

Kinoin, non-formation of acid compounds of (PERKIN), T., 1440; P., 1896, 167.

Njeldahl's method, estimation of platinumchlorides by (VAN DAM), A., ii, 218.

Klinozoisite from the Tyrol (WEINSCHEK), A., ii, 569.

Knaraborough dropping well, analysis of water of (BURRELL), T., 536; P., 1896, 73.

Knopite from Alnö, Sweden (HOLMQUIST), A., ii, 313.

Kola nut, amount of caffeine and theobromine in (LE BON), A., ii, 64.

Koprosterol, separation of, from human faeces (BONDZYŃSKI), A., ii, 319.

Koridofu, a preparation of tofu (INOUE), A., ii, 65.

Kyanite, action of boric acid on (JANNASCH), A., ii, 576.

"Kyanol." See Aniline.

## L.

Labradorite from the Azores (FOUQUÉ), A., ii, 532.

from Bavaria (SCHWAGER and GÜMBEL), A., ii, 432.

from New Zealand (SPEIGHT), A., ii, 192.

Labradorite-bytownite from the Azores and France (FOUQUÉ), A., ii, 532.

Laccase in germinating seeds (REYPAILLHADE), A., ii, 326.

detection of, in vegetables (BERTRAND), A., ii, 61.

in fungi (BOURQUELOT and BERTRAND), A., ii, 288.

Lactase of the small intestine (RÖHMANN and LAPPE), A., ii, 43.

absence of, in intestinal juice of sheep (PREGL), A., ii, 49.

Lactic acid, crystallised, of constant boiling point (KRAFFT and DYES), A., i, 84.

sodium salt, electrolysis of (WALKER), T., 1278.

Lactic acid, trichloro- (ZAHARIA), A., i, 634.

*d*-Lactic acid, conversion of, into lævo-lactic acid (PURDIE and WILLIAMSON), T., 837; P., 1896, 97.

specific rotation of the ethylic salt of (PURDIE and WILLIAMSON), T., 827; P., 1896, 97.

Lactic acids, lævo- and inactive, rotatory powers of the lævo- and inactive amylic salts of (WALDEN), A., ii, 139.

Lactic fermentation, action of metallic salts on (CHASSEVANT), A., ii, 122.

Lactic nitrile, action of acetic chloride on (COLSON), A., i, 283, 284.

Lactide, refraction equivalent of (ANDERLINI), A., ii, 229.

Lactone,  $C_8H_{14}O_2$  (REFORMATSKY), A., i, 129.

$C_{10}H_{14}O_2$ , derived from isobutaldehyde (FRANKE), A., i, 404.

$C_{10}H_{14}O_3$ , from dibromocampholide, and its bromo-derivative (FORSTER), T., 43; P., 1895, 208.

$C_{26}H_{46}O_2$ , from acid,  $C_{26}H_{48}O_3$  (KLINGER and LONNES), A., i, 691.

unsaturated, from ceruleonitrosocampholenolide (BÉHAL and BLAISE), A., i, 56.

Lactone formation in acids of the sugar group, velocity of (HJELT), A., i, 596.

Lactones. See also:—

Anilido- $\alpha$ -methylbutyrolactone.

Butyrolactone.

Camphenesulphonic acid.

Campholenolide.

Campholide.

Dihydroxytetraphenylethanedicarboxylic acid, dilactone of.

2 : 6-Dimethyloctan-3-olonic acid, lactone of.

Diphenyldibutyrolactone.

Ethylvalerolactone.

Galacontonic acid, lactone of.

*iso*-Heptenolactone.

**Lactones.** See:—

- iso*-Hexolactone (*iso-caprolactone*).  
*γ*-*iso*-Hexolactone.  
 Homoterpenoylformic acid.  
 Homoterpenylic acid.  
 δ-Hydroxybutane- $\alpha\gamma\delta$ -tricarboxylic acid, lactone of.  
 $\omega$ -Hydroxycamphotricarboxylic acid, lactone of.  
 Hydroxydibromocamphorsulphonic acid, lactone of.  
 2-Hydroxy-2:3-diphenylcyclopentenonylacetic acid,  $\beta$ -lactone of.  
 Hydroxylactone,  $C_{10}H_{16}O_3$ .  
 Hydroxymethylcoumalin.  
 $\beta$ -Hydroxymethylpicolinic acid, lactone of.  
 $\beta$ -Hydroxy- $\alpha\alpha\beta$ -trimethyladipic acid, lactone of.  
 Hydroxytrimethylglutaric lactone.  
 Lanoceric acid, lactone of.  
 Lyxonolactone.  
 Methoethylheptanonolide.  
 Methylbutyrolactone.  
*p*-Methylcarbocaprolactonic acid.  
 Octolactone:  $\alpha$ -Propylvalerolactone.  
 Opianic acid ethylanilic lactone.  
 Opianic acid naphthylamie lactones.  
 Opianic acid tetrahydroquinaldinic lactone.  
 Opianic acid tetrahydroquinolinic lactone.  
 Phthalaldehydic acid tetrahydroquinolinic lactone.  
 Propylvalerolactone.  
*iso*-Propylvalerolactone.  
*iso*-Rhammonic acid, lactone of.  
 2:4:2':4'-Tetrahydroxydiphenylacetic acid, lactone of.  
 $\gamma$ -Valerolactone.  
 Valerolactone. See  $\alpha$ -Methylbutyrolactone.  
 Vinylpicolinic acid,  $\beta$ -dichloroxy-, lactone of.  
 Lactonic acid,  $C_4H_6O_5$ , from dihydroxymaleic acid and hydrogen bromide in presence of acetic acid (FENTON), T., 559.  
 Lactose (*milk sugar*), action of lead acetate on the rotatory power of (SVOBODA), A., i, 406.  
 action of methyl alcoholic ammonia on (DE BRUYN and VAN LEENT), A., i, 119.  
 action of oxalic acid on (KIERMAYER), A., i, 145.  
 $\alpha$ -allylhydrazone,  $\alpha$ -amylhydrazone,  $\alpha$ -benzylhydrazone,  $\alpha$ -ethylhydrazone, and naphthylhydrazone of (VAN EKENSTEIN and DE BRUYN), A., i, 588.

- Lactose, digestion of, in the small intestine (RÖHMANN and LAPPE), A., ii, 43.  
 in the urine after child-birth (LEMAIRE), A., ii, 490.  
 reducing power of, on ammoniacal silver nitrate (HENDERSON), T., 152; P., 1896, 9.  
 estimation of, by Fehling's solution (KJELDAHL), A., ii, 581.  
 estimation of, in milk (RAUMER and SPAETH), A., ii, 394.  
 estimation of, in milk by polarisation (WILEY and EWELL), A., ii, 628.  
 Lactoseaminoguanidine nitrate and sulphate (WOLFF), A., i, 78, 79.  
 Lactose-ammonia (DE BRUYN and VAN LEENT), A., i, 119.  
 $\beta$ -Lactylcarbamide, action of hydrochloric acid and caustic soda on (WEIDEL and ROITHNER), A., i, 470.  
 and its monacetyl derivative (WEIDEL and ROITHNER), A., i, 470.  
 Lactylglycollic acid, thio- (*acetic-thiopropionic acid*) (LOVÉN), A., i, 413.  
 Lactylhydracrylic acid, thio-. See Dipropionic acid, thio-.  
 $\beta$ -Lactylphenylhydrazide (DE VRIES), A., i, 94.  
 Lactytropeine (MERCK), A., i, 65.  
 Lamprite group of minerals, microchemical reactions of (LEMBERG), A., ii, 430.  
 Långbanite from Sjö mine, Sweden (SjöGREN), A., ii, 113.  
 Lanoceric acid from wool fat (DARMSTAEDTER and LIFSCHÜTZ), A., i, 522.  
 action of alcohol and hydrochloric acid on (DARMSTAEDTER and LIFSCHÜTZ), A., i, 522.  
 lactone of (DARMSTAEDTER and LIFSCHÜTZ), A., i, 522.  
 Lanolinic alcohol, homologues of (DARMSTAEDTER and LIFSCHÜTZ), A., i, 198.  
 Lanthanum carbide (PETTERSSON), A., ii, 25; (MOISSAN), A., ii, 650.  
 niobate (LARSSON), A., ii, 564.  
 oxide, new source of (PHIPSON), A., ii, 422.  
 colloidal solution of (DELAFONTAINE), A., ii, 562.  
 tungstate (HITCHCOCK), A., ii, 526.  
 Lanthanum, separation of thorium from (FRESENUS and HINTZ), A., ii, 677.  
 $\alpha$ -Lapachan, preparation of (HOOKER), T., 1365.  
 $\beta$ -Lapachan, preparation of, and its picrate (HOOKER), T., 1365.

- Lapachol, constitution of (HOOKER), T., 1355; P., 1896, 166.
- iso*- $\beta$ -Lapachol, constitution of (HOOKER), T., 1357, 1363.
- synthesis of, and its acetate (HOOKER), T., 1362.
- bromide (HOOKER), T., 1360, 1379.
- Lapachone (HOOKER), T., 1361.
- $\alpha$ -Lapachone, reduction of (HOOKER), T., 1366.
- $\beta$ -Lapachone, reduction of (HOOKER), T., 1367.
- bromo- (HOOKER), T., 1361.
- iso*-Lapachone (HOOKER), T., 1362.
- Lard, estimation of acetyl numbers of (SPAETH), A., ii, 454.
- iodine number of (ITALIE), A., ii, 344.
- detection of vegetable oils in (JEAN), A., ii, 455.
- detection of cotton-seed oil, &c., in (SCHWEITZER and LUNGWITZ), A., ii, 399; (DUPONT), A., ii, 485.
- analysis of (GOSKE), A., ii, 82; (WESSON), A., ii, 228; (SCHWEITZER and LUNGWITZ), A., ii, 399; (VOGEL), A., ii, 455.
- Lard oil, analysis of (SCHWEITZER and LUNGWITZ), A., ii, 399.
- Latent heat of evaporation, fusion, &c. See Heat.
- Laumontite from the Caucasus (ZEM-JATSCHENSKY), A., ii, 369.
- from Dresden (ZSCHAU), A., ii, 189.
- Lauric acid, behaviour of alkali salts of, with water (KRAFFT and WIGLOW), A., i, 80.
- Laurolene from potassium alloethylic camphorate (WALKER and HENDERSON), T., 750; P., 1896, 110.
- from camphanic acid (ASCHAN), A., i, 447.
- Lauronic acid, cyano-, silver, methylic, and ethylic salts (HOOGWERFF and VAN DORP), A., i, 314.
- Lauronic acid from camphanic acid (ASCHAN), A., i, 447.
- constitution of (WALKER and HENDERSON), T., 758.
- Lautite from Saxony (FRENZEL), A., ii, 111.
- Lawsonite from California (RANSOME and PALACHE), A., ii, 370.
- Lazulite, formula of (RAMMELSBERG), A., ii, 190.
- Lead, specific heat of (BARTOLI and STRACCIATI), A., ii, 145.
- rate of diffusion of, in mercury (HUMPHREYS), T., 250; P., 1896, 9.
- rate of diffusion of, through tin (ROBERTS-AUSTEN), A., ii, 592.
- action of, on lead nitrate (SENDERENS), A., ii, 106; (KIPPENBERGER), A., ii, 522.
- Lead, desilverisation of, by electrolysis (TOMMASI), A., ii, 603.
- Lead alloys with tin and cadmium, solution and diffusion of, in mercury (HUMPHREYS), T., 1681; P., 1896, 220.
- Lead amalgam, thermoelectromotive force of solutions of lead salts and (HAGENBACH), A., ii, 513.
- Lead salts, influence of organic hydroxy-compounds on the precipitation of (KAHLENBERG), A., ii, 7.
- list of quadrivalent (HUTCHINSON and POLLARD), T., 225.
- Lead chloride, fused, electrolysis of (LORENZ), A., ii, 23.
- tetrachloride (HUTCHINSON and POLLARD), T., 218.
- chromate, action of nitric oxide on (AUDEN and FOWLER), A., ii, 172.
- hydroxide, electrochemical preparation of (LORENZ), A., ii, 647.
- imidosulphonates (DIVERS and HAGA), T., 1626.
- iodide, non-existence of various double salts of alkali haloids with (HERTY), A., ii, 474.
- sulphiodide (LENHER), A., ii, 523.
- nitrate, electromotive force required to electrolyse (JAHN), A., ii, 230, 231.
- thermal expansion of solutions of (DE LANNOY), A., ii, 233.
- freezing points of aqueous solutions of (PONSOT), A., ii, 412.
- action of lead on (PETERS), A., ii, 300.
- action of potassium nitrite on (PETERS), A., ii, 300.
- Lead oxides:—
- red lead, action of glacial acetic acid on (HUTCHINSON and POLLARD), T., 213; P., 1896, 31.
- peroxide electrodes in galvanic cells (TOWER), A., ii, 142.
- dioxide, action of nitric oxide on (AUDEN and FOWLER), A., ii, 172.
- Lead tetraphosphate (HUTCHINSON and POLLARD), T., 221; P., 1896, 31.
- thiopyrophosphate (FERRAND), A., ii, 473.
- sodium triphosphate pyrophosphate (STANGE), A., ii, 644.
- sulphide, electrochemical preparation of (LORENZ), A., ii, 648.
- physical change produced by gently heating (SPRING), A., ii, 290.

- Lead sulphide, action of a high temperature on (MOURLOT), A., ii, 603.  
 double sulphide of gold with (MACLAURIN), T., 1273; P., 1896, 149.  
 sulphocarbonate from Broken Hill, N.S.W. (HAMMOND), A., ii, 256.
- Lead, detection of, microchemically (TRAUBE), A., ii, 578.  
 detection of, in waters (EGELING), A., ii, 549.  
 detection of arsenic in, when tin is present (DE KONINGH), A., ii, 273.  
 estimation of, volumetrically (CUSHMANN and HAYES-CAMPBELL), A., ii, 219; (BEEBE), A., ii, 275; (LONGI and BONAVIA), A., ii, 626.  
 estimation of, in alloys with tin, antimony, and arsenic (ANDREWS), A., ii, 501.  
 estimation of, in galena (ECKENROTH), A., ii, 501.  
 estimation of, when present in small quantities in water (ANTONY and BENELLI), A., ii, 549.  
 separation from barium, calcium, antimony, arsenic, iron, copper, and zinc (BEEBE), A., ii, 275.
- Leadhillite pseudomorphs from Missouri (FOOTE), A., ii, 35.
- Leather, estimation of sulphuric acid in (BALLAND and MALJEAN), A., ii, 499.
- Leaves, colouring matter of autumn (STAATS), A., i, 181.
- Lecithin, amount of, in nodules and leaves (STOKLASA), A., ii, 205.  
 assimilation of, by plants (STOKLASA), A., ii, 266.  
 storage of, in the liver (NOËL-PATON), A., ii, 316.
- Lecture experiment: volumetric composition of ammonium chloride vapour (CARNEGIE and WALES), A., ii, 558  
 electrolysis of hydrochloric acid (HIGLEY and HOWARD; PICKEL), A., ii, 557.  
 combustion of oxygen in ammonia (OSSIPOFF), A., ii, 356.  
 with ozone, apparatus for (NEWTN), T., 1298; P., 1896, 139.  
 volumetric composition of water vapour (FREER), A., ii, 558.
- Lectures, memorial: Helmholtz (FITZGERALD), T., 885; P., 1896, 26.  
 Hofmann (ABEL, ARMSTRONG, PERKIN, PLAYFAIR), T., 575; P., 1893, 133.  
 Lothar Meyer (BEDSON), T., 1403; P., 1896, 119.
- Ledene and its hydrochloride (HJELT), A., ii, 249.
- Ledum palustre*, oil from (HJELT), A., i, 248.
- Legumin, constitution of (FLEURENT), A., i, 112.  
 the globulin in peas and vetches (OSBORNE and CAMPBELL), A., i, 715.
- Leguminosæ*, pentoses in (GOETZE and PFEIFFER), A., ii, 443.  
 See also Agricultural chemistry. (Appendix.)
- Lemon-grass oil, semicarbazones from (BARBIER and BOUVEAULT), A., i, 311.
- Lemonol. See Geraniol.
- Lepidolite, constitution of (CLARK), A., ii, 37.
- Lepidomelane from Japan (KOTÔ), A., ii, 39.  
 from Ontario (HOFFMANN), A., ii, 257.  
 from Thuringia (FROMME), A., ii, 370.
- Lepidotic acid in wing-scales of Pieridæ (HOPKINS), A., ii, 198.
- Lepra chlorina*, occurrence of stereo-caulic acid in (ZOPF), A., i, 104.
- Leucaniline, preparation of (HOFMANN LECTURE), T., 613.
- Leucin, occurrence of, in *Vicia sativa* (SCHULZE), A., ii, 208.
- Leucinimide (COHN), A., i, 658.  
 identical with a pyridine derivative from the hydrolysis of albumin (RITTHAUSEN), A., i, 716.
- Leucite-basalt from Vesuvius (THORPE), A., ii, 41.
- Leucite-nepheline group (RAMMELSBERG), A., ii, 189.
- Leucodendron concinnum*, constituents of (HESSE), A., i, 495.
- Leucodrin and its triacetyl derivative (HESSE), A., i, 495.
- Leucol. See Quinoline.
- Leucosin in barley (OSBORNE), A., i, 455.  
 from malt (OSBORNE and CAMPBELL), A., i, 714.  
 preparation and properties of (OSBORNE), A., i, 399.
- Leucotin, identity of, with a mixture of methylprotocotoin and methylhydrocotoin (NEGRI), A., i, 655.
- Levulinic acid (*β*-acetylpropionic acid, *acetylacetic acid*) (KIERMAYER), A., i, 144.  
 condensation of, with benzil (JAPP and MURRAY), P., 1896, 146.  
 as a source of acetone in urine (WEINTRAUD), A., ii, 490.  
 ethylic salt, action of ethylic brom-

- isobutyrate on (PERKIN and THORPE), P., 1896, 156.
- Levulinic acid,  $\beta$ -bromo-, ethylic salt, action of ethylic sodiomalonate on (EMERY), A., i, 414.
- $\alpha$ -cyano-, ethylic salt (KLOBB), A., i, 126.
- methyl salt (KLOBB), A., i, 126.
- phenylhydrazone of (KLOBB), A., i, 126.
- Levulochloral and its benzoyl derivative (HANRIOT), A., i, 519.
- Levulose (*fructose*), solution of, action of heat on (RAYMANN and ŠULC), A., i, 459.
- transformation of, into glucose and mannose (DE BRUYN and VAN EKENSTEIN), A., i, 116.
- hydrazines of, non-crystalline (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- action of chloral on (HANRIOT), A., i, 519.
- action of glyoxylic acid on (BOETTINGER), A., i, 6.
- action of lead acetate on the rotatory power of (SVOBODA), A., i, 406.
- action of lead hydroxide on (DE BRUYN and VAN EKENSTEIN), A., i, 588.
- action of lead hydroxide and potash on (DE BRUYN and VAN EKENSTEIN), A., i, 588.
- action of oxalic acid on (DÜLL), A., i, 121.
- relative proportion of, to glucose in sweet wines (KÖNIG), A., ii, 79.
- reducing power of, on ammoniacal silver nitrate (HENDERSON), T., 152; P., 1896, 9.
- extent of action of, on alkaline copper solutions (KJELDAHL), A., ii, 453.
- estimation of, by copper potassium carbonate (OST), A., ii, 453.
- estimation of, by Fehling's solution (KJELDAHL), A., ii, 581.
- estimation of, in honeys, &c. (WILEY), A., ii, 342.
- Licareol, source of (BARBIER and BOUVEAULT), A., i, 55.
- constitution of (BARBIER and BOUVEAULT), A., i, 491.
- oxidation of (BARBIER and BOUVEAULT), A., i, 345.
- Licarhodaldehyde, conversion of, into lemonaldehyde (BARBIER and BOUVEAULT), A., i, 345.
- Licarhodol, source of (BARBIER and BOUVEAULT), A., i, 55.
- composition of (BERTRAM and GILDEMEISTER), A., i, 381.
- Licarhodol, constitution of (BARBIER and BOUVEAULT), A., i, 491.
- oxidation of (BARBIER and BOUVEAULT), A., i, 345.
- Lichens, occurrence of atranoric acid and allied compounds in (ZOPF), A., i, 103.
- Light, retarding action of hydrochloric acid and chlorides on the decomposition of chlorine water by (KLIMENKO), A., ii, 90.
- action of, on a solution of ferric chloride and oxalic acid (LEMOINE), A., ii, 285.
- action of, on mercurous acetate (HADA), T., 1674; P., 1896, 183.
- dissociation of mercurous nitrate by (HADA), T., 1668; P., 1896, 183.
- action of, on mercurous sulphate (HADA), T., 1673; P., 1896, 183.
- action of, on ethylic ether (RICHARDSON and FORTY), T., 1352; P., 1896, 165.
- action of, on amylic alcohol, &c. (RICHARDSON and FORTY), T., 1349; P., 1896, 164.
- action of, on organic acids in presence of uranium salts (FAY), A., i, 464, 465.
- effect of, on development of rancidity in fats (SPAETH), A., i, 664.
- effect of, on diastase (GREEN), A., i, 110.
- effect of, on assimilation of nitrogen (STOKLASA), A., ii, 205.
- LIGHT:—
- Circular polarisation. See Rotatory power.
- Colour, origin of (ARMSTRONG), P., 1896, 42.
- of atom, ion, and molecule, relations between the (LEA), A., ii, 639.
- of ions, connection between atomic weight and the (THOMSEN), A., ii, 6; (LEA), A., ii, 594.
- of solutions of potassium chromoxalate (HAMBURGER), A., ii, 86.
- Dispersion of organic compounds containing oxygen (ANDERLINI), A., ii, 229.
- molecular, of the double sulphates of potassium, rubidium, and cesium (TUTTON), T., 476; P., 1896, 70.
- rotatory. See Rotatory dispersion.
- Infra-red light, action of, on silver sulphide (RIGOLLOT), A., ii, 3.
- Luminosity of inorganic compounds exposed to cathode rays (WIEDEMANN and SCHMIDT), A., ii, 287.

## LIGHT:—

- Luminosity of hydrocarbon flames, cause of the (LEWES), A., ii, 141.  
 of solid and liquid organic compounds produced by the cathode discharge (WIEDEMANN and SCHMIDT), A., ii, 86.  
 Magnetic rotatory power, apparatus for determining (PERKIN), T., 1027; P., 1896, 122.  
 effect of temperature on (PERKIN), T., 1058; P., 1896, 122.  
 of organic substances, chiefly aromatic (PERKIN), T., 1026; P., 1896, 122.  
 of mixtures (PERKIN), T., 1052; P., 1896, 122.  
 Optical behaviour of the sulphates containing potassium, rubidium, and cesium, influence of atomic weight on the (TUTTON), T., 499; P., 1896, 71.  
 Optically active compounds, inversion of (ARMSTRONG), P., 1896, 46.  
 and inactive substances, molecular weights of (TRAUBE), A., i, 526.  
 Phosphorescence produced by Röntgen rays (JACKSON), P., 1896, 58.  
 Photography, endo- and exo-thermic reactions in (NAMIAS), A., ii, 459.  
 in colours (RICHARD), A., ii, 406.  
 Developer, quinine as a (ACKERMANN), A., i, 513.  
 Photometric unit, use of acetylene as a (VIOLETTE), A., ii, 347.  
 Polarimeter for chemical purposes (LANDOLT), A., ii, 230.  
 Refraction, atomic, of oxygen in organic compounds (ANDERLINI), A., ii, 229.  
 double, of gelatin-producing tissues, reversal by reagents of the (VON EBNER), A., ii, 457.  
 Refraction equivalents of acetylacetone at different temperatures (PERKIN), T., 2; P., 1895, 199.  
 of benzil (ANDERLINI), A., ii, 229.  
 of benzoic anhydride (ANDERLINI), A., ii, 229.  
 of  $\gamma$ -isocapro lactone (ANDERLINI), A., ii, 229.  
 of coumarin (ANDERLINI), A., ii, 229.  
 of dibutyl (ANDERLINI), A., ii, 229.  
 of isodibutyl ketone (ANDERLINI), A., ii, 229.  
 of diethyl ketone (ANDERLINI), A., ii, 229.

## LIGHT:—

- Refraction equivalents of dimethylfumaric anhydride (ANDERLINI), A., ii, 229.  
 of diphenylmethane (ANDERLINI), A., ii, 229.  
 of dipropionyl (ANDERLINI), A., ii, 229.  
 of dipropyl ketone (ANDERLINI), A., ii, 229.  
 of isodivaleryl (ANDERLINI), A., ii, 229.  
 of lactide (ANDERLINI), A., ii, 229.  
 of maleic anhydride (ANDERLINI), A., ii, 229.  
 of phenolphthalein (ANDERLINI), A., ii, 229.  
 of propionic anhydride (ANDERLINI), A., ii, 229.  
 of pyrotartaric anhydride (ANDERLINI), A., ii, 229.  
 of succinic anhydride (ANDERLINI), A., ii, 229.  
 of terebic acid (ANDERLINI), A., ii, 229.  
 of *o*-toluidine at different temperatures (PERKIN), T., 4; P., 1895, 199.  
 of *p*-toluidine at different temperatures (PERKIN), T., 4; P., 1895, 199.  
 of triphenylmethane (ANDERLINI), A., ii, 229.  
 of isovaleric anhydride (ANDERLINI), A., ii, 229.  
 of  $\gamma$ -valerolactone (ANDERLINI), A., ii, 229.  
 Refraction, molecular, new formula for (EIJKMAN), A., ii, 133; (ZECCHINI), A., ii, 285.  
 influence of electrolytic dissociation on (LE BLANC and ROHLAND), A., ii, 345.  
 of crystalline salts, additive nature of (POPE), T., 1530; P., 1896, 178.  
 of substances in the solid and liquid states compared (POPE), T., 1533; P., 1896, 178.  
 of the double sulphates of potassium, rubidium, and cesium (TUTTON), T., 476, 503; P., 1896, 70.  
 of the salts of the polythionic acids (HERTLEIN), A., ii, 353.  
 Refractive index, mean, of anisotropic crystals (POPE), T., 1530; P., 1896, 177.  
 Refractive indices of the double sulphates of potassium, rubidium, and cesium (TUTTON), T., 463; P., 1896, 69.

## LIGHT:—

- Refractive indices of organic substances (EIJKMAN), A., ii, 133.  
 Refractive power of argon and helium (RAYLEIGH), A., ii, 598.  
 Refractometer, a new (PULFRICH), A., ii, 161.  
 applied to butteranalysis (BESANA), A., ii, 129.  
 Radiations which affect a sensitive plate after traversing metals (LE BON), A., ii, 347.  
 phosphorescent, photographic action of (BECQUEREL), A., ii, 406.  
 Röntgen rays, methods of producing, and nature of (JACKSON), P., 1896, 58.  
 properties of (PERRIN), A., ii, 347.  
 relative opacity of substances for (NOVÁK and ŠULC), A., ii, 406.  
 influence of the, on chemical changes (DIXON and BAKER), T., 1308; P., 1896, 160.  
 influence of the, on the combination of carbonic oxide and oxygen (DIXON), T., 788; P., 1896, 56.  
 Rotatory power of substances in the crystalline and amorphous condition (POPE), T., 971; P., 1896, 116.  
 influence of position isomerism on (FRANKLAND and WHARTON), T., 1583; P., 1896, 186.  
 of two asymmetric carbon atoms, superposition of the (GUYE and GOUDET), A., ii, 134; (WALDEN), A., ii, 138.  
 of six asymmetric carbon atoms, superposition of the (GUYE and GOUDET), A., ii, 458.  
 of the diamylic divaleryl tartrates (GUYE and GOUDET), A., ii, 458.  
 of aspartic acid (MARSHALL), T., 1022; P., 1896, 146.  
 of isobutylic dichloroacetyl tartrate (FREUNDLER), A., ii, 554.  
 of cæsium dextro tartrate in the crystalline and liquid states (TRAUBE), A., ii, 509.  
 of crystals of hydrated *trans*-camphotricarboxylic acid (POPE), T., 978; P., 1896, 116.  
 of cholic acid, choleic acid, and deoxycholic acid (VAHLEN), A., i, 453.  
 of ethylic diacetyl glycerate dissolved in acetic acid (FRANKLAND and PICKARD), T., 136; P., 1896, 11.

## LIGHT:—

- Rotatory power of ethylic diacetyl glycerate dissolved in benzene (FRANKLAND and PICKARD), T., 135; P., 1896, 11.  
 of ethylic dichloroacetyl tartrate (FREUNDLER), A., ii, 554.  
 of derivatives of maleic and fumaric acids (WALDEN), A., ii, 633.  
 of malic acid and its derivatives (WALDEN), A., ii, 135.  
 of mandelic acid and its derivatives (WALDEN), A., ii, 137, 138.  
 of matico-camphor in the crystalline and liquid states (TRAUBE), A., ii, 509.  
 of methylic and ethylic monobenzoyl glycerates at different temperatures (FRANKLAND and MACGREGOR), T., 112; P., 1896, 10.  
 of methylic dibenzoyl glycerate dissolved in acetic acid (FRANKLAND and PICKARD), T., 133; P., 1896, 11.  
 of methylic dibenzoyl glycerate dissolved in benzene (FRANKLAND and PICKARD), T., 127; P., 1896, 11.  
 of methylic dibenzoyl glycerate dissolved in ethylene dibromide (FRANKLAND and PICKARD), T., 130; P., 1896, 11.  
 of methylic dibenzoyl glycerate dissolved in nitrobenzene (FRANKLAND and PICKARD), T., 131; P., 1896, 11.  
 of methylic and ethylic dibenzoyl tartrates (FRANKLAND and WHARTON), T., 1585; P., 1896, 186.  
 of methylic dichloroacetyl tartrate (FREUNDLER), A., ii, 554.  
 of methylic diphenylacetyl glycerate at different temperatures (FRANKLAND and MACGREGOR), T., 111; P., 1896, 10.  
 of methylic dipropionyl glycerate at different temperatures (FRANKLAND and MACGREGOR), T., 116; P., 1896, 10.  
 of methylic, ethylic, and propylic dibenzoyl glycerates at different temperatures (FRANKLAND and MACGREGOR), T., 104; P., 1896, 9.  
 of the methylic and ethylic salts of *o*-, *m*-, and *p*-ditoluoyl tartaric acids (FRANKLAND and WHARTON), T., 1309, 1589; P., 1896, 148.

## LIGHT:—

- Rotatory power of  $\alpha$ -nitrocamphor in different solvents (PESCETTA), A., ii, 346.
- of patchouli camphor in the crystalline and liquid states (TRAUBE), A., ii, 509.
- of propylic dichloroacetyl tartrate (FREUNDLER), A., ii, 554.
- of superfused and dissolved rhamnose (GERNEZ), A., ii, 287.
- of rubidium tartrate in the crystalline and liquid states (TRAUBE), A., ii, 509.
- of succinic acid and its derivatives (WALDEN), A., ii, 135.
- Specific rotatory power, influence of solvents on and of ring formation on (FORSTER), T., 40.
- of ethylic acetyl- $d$ -lactate (PURDIE and WILLIAMSON), T., 828; P., 1896, 97.
- of ethylic acetylmalate (PURDIE and WILLIAMSON), T., 824; P., 1896, 97.
- of ethylic butyrylmalate (PURDIE and WILLIAMSON), T., 825.
- of ethylic dextrochloropropionate (PURDIE and WILLIAMSON), T., 829; P., 1896, 97.
- of ethylic  $d$ -lactate (PURDIE and WILLIAMSON), T., 827; P., 1896, 97.
- of malic acid and its potassium salt (PURDIE and WILLIAMSON), T., 822.
- of the methylic, ethylic, propylic, isopropylic, normal butylic, and isobutylic salts of malic acid (PURDIE and WILLIAMSON), T., 823; P., 1896, 97.
- of valeric acid and its salts (GUYE and ROSSI), A., ii, 85.
- Birotation, cause of (LIPPMANN), A., ii, 230.
- of glucose in different solvents (TREY), A., ii, 139.
- Rotatory dispersion in non-associating liquids (GUYE and JORDAN), A., ii, 459.
- of malic acid, anomalous (NASINI and GENNARI), A., ii, 133, 285.
- of nicotine and its salts (GENNARI), A., ii, 286.
- Spectrum or spectra (spark) of non-metals in the vapour of alkali salts (DE GRAMONT), A., ii, 585.
- of argon (RAYLEIGH and RAMSAY), A., ii, 103; (FRIEDLÄNDER), A., ii, 457.

## LIGHT:—

- Spectrum or spectra, of argon when mixed with other gases (COLLIE and RAMSAY), A., ii, 634.
- blue, of argon (KAYSER), A., ii, 2.
- of argon, three different (EDER and VALENTA), A., ii, 405.
- of the carbon compound of argon (CROOKES), A., ii, 2.
- of carbon compounds (Geissler tube), (BOHN), A., ii, 140.
- of the Bunsen flame (BOHN), A., ii, 140.
- of the carbon bisulphide flame (BOHN), A., ii, 140.
- of the carbonic oxide flame (BOHN), A., ii, 140.
- of the flame of cyanogen (LEWES), T., 240; P., 1896, 2.
- of flames (EDER), A., ii, 287.
- of a candle flame (HARTLEY), T., 845.
- of the gas obtained from cleveite (helium) (RUNGE and PASCHEN), A., ii, 1.
- of gas from uraninite and eliasite (LOCKYER), A., ii, 597.
- of the sun, wave-length of the line  $D_3$  in the (PALMER), A., ii, 405.
- of helium (CROOKES), A., ii, 1.
- of helium from different sources (RAMSAY), A., ii, 596.
- of helium when mixed with other gases (COLLIE and RAMSAY), A., ii, 634.
- of the hydrogen flame (BOHN), A., ii, 140.
- of mercury, line and band (EDER and VALENTA), A., ii, 2.
- of phosphorus (spark) in its compounds (DE GRAMONT), A., ii, 585.
- of the flame of sulphur (BOHN), A., ii, 140.
- Absorption spectrum or spectra, banded, interpretation of (ÉTARD), A., ii, 133.
- of bromine dissolved in carbon bisulphide vapour (WOOD), A., ii, 458.
- of the cobalt salts, origin of the (ÉTARD), A., ii, 133.
- of the chromium salts, original of the (ÉTARD), A., ii, 133.
- of solutions of potassium chromoxalate (HAMBURGER), A., ii, 86.
- of iodine dissolved in carbon bisulphide vapour (WOOD), A., ii, 458.
- of organic colouring matters (KRÜSS), A., ii, 285.
- of chromothiocyanates (MAGNANINI), A., ii, 345.



**LIGHT :**

- Absorption spectrum or spectra of hæmoglobin and compounds (GAMGEE), A., i, 713.
- of indophenols (BAYRAC and CAMICHEL), A., ii, 345.
- of urobilin (GARROD and HOPKINS), A., i, 713.
- of violuric acid and its salts (DONNAN), A., ii, 405.
- Fluorescence spectrum or spectra, of argon (DORN and EDMANN), A., ii, 2.
- of potassium vapour (WIEDEMANN and SCHMIDT), A., ii, 346.
- of sodium vapour (WIEDEMANN and SCHMIDT), A., ii, 346.
- of gaseous organic substances (WIEDEMANN and SCHMIDT), A., ii, 86.
- Spectrum analysis of gases, method of filling vacuum tubes for (YOUNG and DARLING), A., ii, 3.
- quantitative, new method of (KRUSS), A., ii, 215.
- Velocity of light along the axes of the optical ellipsoid of double sulphates of potassium, rubidium, and cæsium (TUTTON), T., 466; P., 1896, 69.
- Lignaloës, oil of, constituents of (BARBIER and BOUVEAULT), A., i, 55.
- Limburgite from East Lothian (HATCH), A., ii, 116.
- Lime. See Calcium oxide, also Agricultural chemistry (Appendix).
- Limes, oil of, constituents of (GILDEMEISTER), A., i, 54.
- Limestone from Bohemia (ŠTOLBA), A., ii, 435.
- from New South Wales (LIVERSIDGE), A., ii, 658.
- Limestones from Burma, minerals of, (BROWN and JUDD), A., ii, 33.
- and dolomites from Canada (HARRINGTON), A., ii, 116.
- from Sussex Co., New Jersey (NASON), A., ii, 435.
- Limonene, influence of solvents on specific rotatory power of (KREMERs), A., i, 177.
- hydrochloride, conversion into terpene hydrate (KREMERs), A., i, 177.
- d*-Limonene nitroschloride, behaviour of, towards halogen hydrides (VON BAeyer), A., i, 246.
- Linalol, sources of (GILDEMEISTER), A., i, 54.
- purification of (TIEMANN and KRÜGER), A., i, 382.
- Linoleic acid (HÉBERT), A., i, 638.

- Linseed oil, compound of, with sulphur (HENRIQUES), A., i, 204.
- oxidisability of (BISHOP), A., ii, 399.
- iodine and bromine absorptions of (WILLIAMS), A., ii, 281.
- iodine number of pure and boiled (KATZ), A., ii, 680.
- raw and boiled, examination of (HEFELMANN and MANN), A., ii, 680.
- Lipoxanthin series of dyes (SCHRÖTTER-KRISTELLI), A., ii, 208.
- Liquefaction of gases. See Gases.
- Lithiophilité and triphylite, optical properties of (PENFIELD and PRATT), A., ii, 184.
- Lithium, preparation of (BOCHERS), A., ii, 520; (WARREN), A., ii, 646.
- spark spectra of the salts of (DE GRAMONT), A., ii, 585.
- combination of, with nitrogen (DESLANDRES), A., ii, 299; (GUNTZ), A., ii, 300.
- Lithium bromide, thermochemical data of the compound of mercuric cyanide with (VARET), A., ii, 88.
- carbide (MOISSAN), A., ii, 419.
- chloride, electrolysis of a solution of, in acetone (ŁASZCZYŃSKI), A., ii, 556.
- absorption of moisture by (HAKÉ), P., 1896, 34.
- subchloride (GUNTZ), A., ii, 299.
- hydride (GUNTZ), A., ii, 359.
- iodide, thermochemical data of the action of mercuric cyanide on (VARET), A., ii, 148.
- nitrate, vapour pressures of concentrated solutions of (WADDELL), A., ii, 151.
- zirconate (VENABLE and CLARKE), A., ii, 653.
- cyanide, thermochemical data of (VARET), A., ii, 149.
- Lithofellic acid, preparation and properties of, from gall-stones (JÜNGER and KLAGES), A., i, 194.
- Lithofello lactone, preparation of, by hydrolysis of lithofellic acid (JÜNGER and KLAGES), A., i, 194.
- Liver, iron in (WOLTERING), A., ii, 197.
- storage of iron in the (STOCKMAN), A., ii, 438.
- relation of, to fat (NOËL-PATON), A., ii, 316.
- formation of sugar in the (MOSSE), A., ii, 617.

- Liver, cause of formation of sugar in, after death (PAVY), A., ii, 665.  
 of the dolphin, substances present in the (DRECHSEL), A., ii, 378.  
 estimation of glycogen in (KISTIAKOFFSKY), A., ii, 80.
- Lobaria pulmonacea*, cholesterol from (GÉRAUD), A., i, 21.
- Löllingite, cobaltiferous, from Ontario (HOFFMANN), A., ii, 258.
- Lolium ital.*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Lomatol, constitution of (HOOKER), T., 1369, 1381.
- iso*-Lomatol, preparation of (HOOKER), T., 1382.
- Lophine, synthesis of (KULISCH), A., i, 627.
- Lophophorine, properties of (HEFFTER), A., i, 268.
- Lorandite from Allchar, Macedonia (KRENNER), A., ii, 30.
- Lucerne, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Lupin, conglutin, the principal proteid in (OSBORNE and CAMPBELL), A., i, 716.
- Lupins. See Agricultural chemistry.
- Lupinus*, conglutin, the principal proteid in (OSBORNE and CAMPBELL), A., i, 716.  
*albus*, alkaloid from, properties of, its salts and its extraction (SOLDAINI), A., i, 193.  
*luteus*, decomposition of albumin in (ZIEGENBEIN), A., ii, 265.  
 and *L. angustifolius*, occurrence of paragalactan in cell-wall of cotyledons of (SCHULZE), A., ii, 619.  
*angustifolius* and *L. luteus*. See Agricultural chemistry.
- Luteolin, the colouring matter of weld (PERKIN), T., 206; P., 1896, 37.  
 preparation of, from weld extract (PERKIN), T., 207.  
 preparation and properties of compounds of, with mineral acids (PERKIN), T., 208.  
 constitution of (PERKIN), T., 212, 799; P., 1896, 37, 105.  
 relation of, to fisetin and chrysin (HERZIG), A., i, 494.  
 relation of, to quercetin (PERKIN), T., 803; P., 1896, 105.  
 decomposition of, with fused alkalis (PERKIN), T., 210, 801; P., 1896, 37, 105.  
 tetracetyl and tetrabenzoyl derivatives of (PERKIN), T., 210; P., 1896, 37.
- Luteolin, triethyl ether and its acetyl derivative (PERKIN), T., 800; P., 1896, 105.  
 triethyl ether, decomposition of, with alcoholic potash (PERKIN), T., 802; P., 1896, 105.  
 hydriodide, analysis of (PERKIN), T., 1442; P., 1896, 167.
- Luteolin, bromo-, acetyl derivative of (PERKIN), T., 210; P., 1896, 37.  
 preparation and properties of (PERKIN), T., 209; P., 1896, 37.
- Lutidinedicarboxylic acids. See Dimethylpyridinedicarboxylic acids.
- Lymph, causes of formation of (MENDEL), A., ii, 315; (LAZARUS-BARLOW), A., ii, 485; (COHNSTEIN), A., ii, 616.
- Lysidine, action of benzoic chloride and potassium carbonate on (LADENBURG), A., i, 201.  
 hydrochloride, products of dry distillation of (LADENBURG), A., i, 201.
- Lyxonic acid (FISCHER and BROMBERG), A., i, 348.  
 brucine salt (FISCHER and BROMBERG), A., i, 348.  
 phenylhydrazide of (FISCHER and BROMBERG), A., i, 348.
- Lyxonolactone (FISCHER and BROMBERG), A., i, 348.
- Lyxose (*pentanetetronal*) (FISCHER and BROMBERG), A., i, 348.  
 cyanhydrin of (FISCHER and BROMBERG), A., i, 348.
- Lysine, separation of pure (DRECHSEL), A., i, 268.
- Lysuric acid, barium salt of (DRECHSEL), A., i, 268.

## M.

- Maclura tinctoria*, morin, the colouring matter of (PERKIN and BABLICH), T., 792; P., 1896, 106.
- Magenta. See Rosaniline.
- Magnesite from Servia (STANOJEVIĆ), A., ii, 254.
- Magnesium, solution and diffusion of, in mercury (HUMPHREYS), T., 1680; P., 1896, 220.  
 action of, on a photographic plate (COLSON), A., ii, 601.  
 action of, on solutions of salts (KIPPENBERGER), A., ii, 522.  
 action of, on aqueous solutions of

- salts and other substances (VITALI), A., ii, 419.
- Magnesium, combination of, with argon and helium (TROOST and OUVREARD), A., ii, 99.
- Magnesium salts, elimination of, in rickets (DE KONINCK), A., ii, 50.
- bromide, thermochemical data of the compound of mercuric cyanide and (VARET), A., ii, 88.
- carbonate, estimation of, in soil (MAUZELIUS and VESTERBERG), A., ii, 219.
- sodium carbonate (SCHULTEN), A., ii, 610.
- chlorocarbonate (SCHULTEN), A., ii, 610.
- chloride, freezing points of dilute solutions of (LOOMIS), A., ii, 352.
- absorption of moisture by (HAKE), P., 1896, 34.
- cobaltite (DUFAY), A., ii, 647.
- hydroxide, electrochemical preparation of (LORENZ), A., ii, 647.
- action of ammonium salts in preventing the precipitation of (LOVÉN), A., ii, 413.
- iodide, thermochemical data of the action of mercuric cyanide on (VARET), A., ii, 148.
- niobate (LARSSON), A., ii, 564.
- nitrate, absorption of moisture by (HAKE), P., 1896, 34.
- basic (DIDIER), A., ii, 474.
- nitride, action of acetic anhydride on (EMMERLING), A., i, 591.
- action of benzoic anhydride on (EMMERLING), A., i, 591.
- silver nitrite (SPIEGEL), A., ii, 360.
- oxide (*magnesia*), action of dry hydrogen chloride on (VELEY), A., ii, 360.
- See also Agricultural chemistry.
- calcium phosphates from Algeria (MALBOT), A., ii, 185.
- sodium triphosphate (STANGE), A., ii, 643.
- silicate, a new mineral (CESÀRO), A., ii, 481.
- hydrated, an artificial (KONINCK), A., ii, 480.
- sulphate, thermal expansion of solutions of (DE LANNOY), A., ii, 233.
- density of very dilute solutions of (KOHLEAUSCH), A., ii, 90.
- solubility of isomorphous mixtures of zinc sulphate and (STORTENBEKER), A., ii, 14.
- cæsium sulphate, density and optical behaviour of (TUTTON), T., 366.
- Magnesium salts, potassium sulphate, optical behaviour of (TUTTON), T., 356.
- density of (TUTTON), T., 355.
- rubidium sulphate, density and optical behaviour of (TUTTON), T., 361.
- alums, natural (CARD), A., ii, 530.
- zinc alum from New South Wales (CARD), A., ii, 252.
- Magnesium allylide (KEISER), A., i, 457.
- cyanide, thermochemical data of (VARET), A., ii, 149.
- estimation of, as pyrophosphate (NEUBAUER), A., ii, 674.
- Magnetic pyrites. See Pyrrhotite.
- Magnetic rotation. See Light, magnetic rotatory power.
- Magnetite from Servia (LOSANITSCH), A., ii, 252.
- magnetic behaviour of (ABT), A., ii, 657.
- artificial (MÜLLER), A., ii, 254.
- containing manganese and aluminium from Madras (HOLLAND), A., ii, 254.
- Maize meal, proteids from (KJELDAHL), A., i, 584.
- Maize. See also Agricultural chemistry. (Appendix.)
- Maleic acid, heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.
- behaviour of, when heating under small pressure (KRAFFT and DYES), A., ii, 89.
- conversion of, into fumaric acid (MICHAEL), A., i, 132.
- amylic salt, rotatory power of the (WALDEN), A., ii, 633.
- Maleic acid, bromo- (MICHAEL), A., i, 131.
- melting point and behaviour of, towards aqueous potash (MICHAEL), A., i, 131.
- silver salt, action of heat on aqueous solution of (MICHAEL), A., i, 131.
- amylic salt, rotatory power of (WALDEN), A., ii, 633.
- dibromo-, ethylic salt, loss of halogen by (MICHAEL and CLARK), A., i, 132.
- chloro-, from dichlorosuccinic acid (MICHAEL and TISSOT), A., i, 132.
- behaviour of, towards aqueous potash of (MICHAEL), A., i, 131.
- amylic salt, rotatory power of (WALDEN), A., ii, 633.
- ethylic salt, behaviour of, towards

- ethylic acetoacetate (RUHEMANN and TYLER), T., 535.  
 Maleic anhydride, refraction equivalent of (ANDERLINI), A., ii, 229.  
   action of alcoholic ammonia on (PIUTTI), A., i, 669.  
 Maleic anhydride, *di*bromo-, action of carbamide on (DUNLAP), A., i, 471.  
 Maleimide, *di*bromo- (DUNLAP), A., i, 471.  
 Maleinanil, bromo- (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.  
 Malein-*p*-tolil, bromo- (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.  
 Maleinuric acid, *di*bromo- (DUNLAP), A., i, 471.  
 Maleinuric acid, *di*chloro- (DUNLAP), A., i, 471.  
 Malic acid, configuration of (FISCHER), A., i, 526.  
   and its potassium salt, specific rotation of (PURDIE and WILLIAMSON), T., 822.  
   anomalous rotatory dispersion of (NASINI and GENNARI), A., ii, 133, 285.  
   action of isopropyl iodide on the silver salt of (PURDIE and WILLIAMSON), T., 825.  
   in fruit juices (KREMLA), A., ii, 62.  
   ethylic salt, preparation of (WISLICENUS), A., i, 672.  
   methylic, ethylic, propylic, isopropylic, normal butylic, isobutylic, amylc, and octylic salts of, specific rotation of the (PURDIE and WILLIAMSON), T., 823; P., 1896, 97; (WALDEN), A., ii, 135, 136.  
 Malic acid, thio- (ANDREASCH), A., i, 90.  
*l*-Malic acid from asparagine and aspartic acid (WALDEN), A., i, 139.  
 Malic acid, *lævo*- and inactive, rotatory powers of the *lævo*- and inactive amylc salts of (WALDEN), A., ii, 139.  
 Mallow, dye of (WEIGERT), A., i, 388.  
 Malonamide, action of hypobromite and of bromine and potash on (WEIDEL and ROITHNER), A., i, 470, 471.  
 Malonenediamidoxime and its diacetyl and dibenzoyl derivatives (SCHMIDTMANN), A., i, 458.  
 Malonenediazoximedibenzenyl (SCHMIDTMANN), A., i, 458.  
 Malonenediazoximediethenyl (SCHMIDTMANN), A., i, 458.  
 Malonic acid, heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.  
   absorption by silk of dilute (WALKER and APPLEYARD), T., 1346; P., 1896, 147.  
 Malonic acid, action of *isobutaldehyde* and acetic acid on (BRAUN), A., i, 594.  
   potassium uranyl salt of (FAY), A., i, 465.  
   ethylic salt, molecular volume of, in organic solvents (NICOL), T., 143; P., 1895, 237.  
   hydrolysis of (HJELT), A., i, 205.  
   velocity of formation of alkyl derivatives of (BISCHOFF), A., i, 84.  
   action of sodium ethoxide and  $\beta$ -bromomethyl phenyl ether on (BENTLEY, HAWORTH, and PERKIN), T., 167, 169; P., 1896, 35, 36.  
   action of diethylic bromomalonate on, in presence of sodium ethoxide (BISCHOFF), A., i, 468.  
   condensation of, with phenacetic chloride (SCHOTT), A., i, 700.  
   methylic salt, thermochemical data of (GUINCHANT), A., ii, 12.  
   action of methylic bromomalonate on, in presence of sodium ethoxide (BISCHOFF), A., i, 468.  
   action of sodium methoxide and iodine on (BISCHOFF), A., i, 468.  
 Malonic acid, bromo-, ethylic salt, action of ethylic sodethylmalonate on (BISCHOFF), A., i, 527.  
   action of ethylic sodiopropane-1 : 2 : 2 : 3 : 3-pentacarboxylic acid on (BISCHOFF), A., i, 601.  
   action of sodium ethoxide on (BISCHOFF), A., i, 469.  
   methylic salt, action of methylic sodethanetricarboxylate on (BISCHOFF), A., i, 600.  
   action of sodium methoxide on (BISCHOFF), A., i, 468.  
 chloro-, ethylic salt, action of ethylic sodethylmalonate on (BISCHOFF), A., i, 527.  
   action of sodium ethoxide on (BISCHOFF), A., i, 469.  
   oximido- (ANDREASCH), A., i, 88.  
   sodio-, ethylic salt, molecular weight of (BECKMANN and SCHLIEBS), A., i, 124.  
   action of ethylic  $\alpha$ -bromobutyrate,  $\alpha$ -bromoisobutyrate,  $\alpha$ -bromopropionate, and  $\alpha$ -bromoisovalerate on (BISCHOFF), A., i, 467.  
   action of ethylic  $\alpha$ -bromomethyl-ethylacetate on (AUWERS and SCHLOSSER), A., i, 640.  
   action of ethylic chloracetate on (BISCHOFF), A., i, 466.  
   action of ethylic chloroethylmalonate and bromethyl-

- malonate on (BISCHOFF), A., i, 528.
- Malonic acid**, sodio-, ethylic salts, action of ethylic chloromethylmalonate and bromomethylmalonate on (BISCHOFF), A., i, 527.
- action of ethylic isopropylacrylate on (PERKIN), T., 1490.
- action of ethylic  $\alpha$ -3,3-trimethylpropionate on (PERKIN and THORPE), T., 1485.
- action of tetrahalogen ethylene compounds on (BISCHOFF), A., i, 130.
- action of trimethylenic bromide on (BISCHOFF), A., i, 130.
- methylic salt, action of carbon tetrachloride on (ZELINSKI and PORCHUNOW), A., i, 135.
- Malonic acids**, sodioalkyl-, comparative ease of the action of the ethylic salts of  $\alpha$ -bromo-fatty acid on the ethylic salts of (BISCHOFF), A., i, 464.
- Malononitrile**, action of hydroxylamine on (SCHMIDTMANN), A., i, 458.
- action of alcoholic sodium ethoxide on (SCHMIDTMANN), A., i, 458.
- condensation of, with diazobenzene nitrate (SCHMIDTMANN), A., i, 459.
- Malonylazoimide** (CURTIUS), A., i, 35.
- Malt**, preparation of diastase from (OSBORNE and CAMPBELL), A., i, 716.
- proteids of (OSBORNE and CAMPBELL), A., i, 714.
- estimation of sucrose in (JALOWETZ), A., ii, 225.
- Malt extract**, special ferment (cytase) in (GRÜSS), A., ii, 669.
- estimation of (HERON), A., ii, 343; (STERN), A., ii, 396.
- Maltase**, occurrence of, in plants (BOURQUELOT), A., i, 111.
- Maltodextrins**. See Dextrins.
- Maltose**, action of lead acetate on the rotatory power of (SVOBODA), A., i, 406.
- action of alcoholic ammonia on (DE BRUYN and VAN LEENT), A., i, 119.
- action of dextrin on (JALOWETZ), A., i, 405, 406.
- hydrolysis of, by yeast (LINTNER), A., i, 4.
- alcoholic fermentation of (BOURQUELOT), A., i, 111.
- fermentation of, by *Eurotium* Gayoni (LABORDE), A., ii, 322.
- digestion of (BOURQUELOT and GLEY), A., ii, 315.
- Maltose**, reducing power of, on ammoniacal silver nitrate (HENDERSON), T., 153; P., 1896, 9.
- estimation of, by copper potassium carbonate (OST), A., ii, 453.
- estimation of, by Fehling's solution (KJELDAHL), A., ii, 581.
- iso*-Maltose, two possible stereoisomeric modifications of (LINTNER), A., i, 119.
- Lintner's, evidence against the existence of (ULRICH), A., i, 335; (JALOWETZ), A., i, 406.
- non-identity of, with maltose (FISCHER), A., i, 119, 120.
- action of diastase on (LINTNER), A., i, 119.
- hydrolysis of, by yeast (LINTNER), A., i, 4.
- meta*-Maltose (MITTELMEIER), A., i, 336.
- Maltoseamine** (DE BRUYN and VAN LEENT), A., i, 119.
- Malytropine** (MERCK), A., i, 65.
- Mandelamide** (HALLER), A., i, 32.
- rotatory power of (WALDEN), A., ii, 138.
- Mandelic acid** (*phenylglycollic acid*), rotatory power of (WALDEN), A., ii, 138.
- action of phenylcarbimide on (HALLER), A., i, 32.
- methoxybenzylideneamide of (MINOVICI), A., i, 703.
- potassium salt, electrolysis of (WALKER), T., 1279.
- methylic, ethylic, isobutylic, and amylic salts, rotatory power of the (WALDEN), A., ii, 138.
- p*-aminophenetol salt (WENGHÖFFER), A., i, 360.
- Mandelic acids**, lævo- and inactive, amylic salts of, rotatory powers of the lævo- and inactive (WALDEN), A., ii, 139.
- Mandelonitrile**, compound  $C_{15}H_{19}N_2$  obtained by the action of alcoholic ammonia on (VON MEYER), A., i, 420.
- Manganapatite** from Bavaria (WEINSCHEK), A., ii, 310.
- Manganese alloys** with aluminium (COMBES), A., ii, 604.
- Manganese carbide** (MOISSAN), A., ii, 423.
- thermochemical data of (LE CHATELIER), A., ii, 350.
- carbonate, thermochemical data of (LE CHATELIER), A., ii, 350.
- chloride, electrolytic dissociation of, at different temperatures (SALVADORI), A., ii, 512.

- Manganese hydroxide, electrochemical preparation of (LORENZ), A, ii, 647.
- niobate (LARSSON), A., ii, 564.
- nitrate, hydrated, absorption of moisture by (HAKE), P., 1896, 34.
- monoxide, thermochemical data of (LE CHATELIER), A., ii, 350.
- dioxide (*peroxide*), electrodes in galvanic cells (TOWER), A, ii, 142.
- thermochemical data of (LE CHATELIER), A, ii, 350.
- action of nitric oxide on (AUDEN and FOWLER), A, ii, 172.
- precipitation of, by hypochlorous acid (E. and B. KLIMENKO), A., ii, 303.
- reduction of permanganic acid by (MORSE, HOPKINS, and WALKER), A, ii, 475.
- Permanganic acid, reduction of, by manganese dioxide (MORSE, HOPKINS, and WALKER), A., ii, 475.
- permanganates, electrochemical preparation of (LORENZ), A., ii, 650.
- potassium permanganate, estimation of, by means of sulphuric acid (MORSE and CHAMBERS), A., ii, 388.
- standardisation of (RIEGLER), A., ii, 676.
- Manganese sodium triphosphate (STANGE), A., ii, 643.
- silicate, thermochemical data of (LE CHATELIER), A., ii, 350.
- silicide (VIGOUROUX), A., ii, 249.
- sulphide, crystallised anhydrous (MOURLOT), A., ii, 25.
- caesium sulphate, density and optical behaviour of (TUTTON), T., 403.
- rubidium sulphate, density and optical behaviour of (TUTTON), T., 399.
- Manganese, estimation of, electrolytically (ENGELS), A., ii, 276.
- estimation of, volumetrically (AUCHY), A., ii, 339; (STONE), A., ii, 547.
- estimation of, in iron ores (MIXER and DUBOIS), A., ii, 547.
- estimation of, in steel, errors in (AUCHY), A., ii, 627.
- separation of, qualitatively from iron, nickel, cobalt, chromium, aluminium, and zinc (HARE), A., ii, 127.
- separation of arsenic from (JANNASCH and KAMMERER), A., ii, 221.
- separation of chromium from (JANNASCH and VON CLOEDT), A., ii, 222.
- Manganese, separation of cobalt from (JANNASCH and LEHNERT), A., ii, 547.
- separation of copper and zinc from (JANNASCH), A., ii, 546.
- separation of zinc from (JANNASCH and VON CLOEDT), A., ii, 220.
- Manganite from Michigan (HOBBS), A., ii, 33.
- Manganocolumbite from Maine (FOOTE), A., ii, 660.
- Mannan, occurrence of two kinds of, in the roots of *Conophallus konjak* (KINOSHITA), A., ii, 60.
- as a food (TSUJI), A., ii, 44.
- hydrolysis of (KINOSHITA), A., ii, 60.
- Mannitol, boiling point of, under reduced pressure (KRAFFT and DYES), A., ii, 89.
- heat of solution of, in water (SPEYERS), A., ii, 411.
- fermentation of, in Sicilian wines (BASILE), A., ii, 121.
- l*-Mannonic acid, velocity of lactone formation in (HJELT), A., i, 597.
- Mannose, preparation of, from ivory-nut turnings (DE WITT), A., i, 459.
- transformation of, into glucose and fructose (DE BRUYN and VAN EKENSTEIN), A., i, 116.
- action of ammonia on (DE BRUYN and VAN LEENT), A, i, 586.
- action of lead hydroxide on (DE BRUYN and VAN EKENSTEIN), A., i, 588.
- action of lead hydroxide and potash on (DE BRUYN and VAN EKENSTEIN), A., i, 588.
- d*-Mannose, crystallised (VAN EKENSTEIN), A., i, 272.
- Mannose- $\alpha$ -allylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Mannose- $\alpha$ -amylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Mannose- $\alpha$ -benzylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Mannose-ethylenemercaptal (LAWRENCE), A., i, 272.
- Mannose- $\alpha$ -ethylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Mannonaphthylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Manures. See Agricultural chemistry (Appendix).
- Marbles, onyx- (MERRILL), A., ii, 260.
- Marcasite, constitution of (BROWN), A., ii, 108.

- Margarine cheese.** See *Agricultural chemistry* (Appendix).
- Marsh gas, composition of** (SCHLOESING), A., i, 401.
- Martite, artificial** (FRIEDEL), A., ii, 110.
- Martylamine.** See *Diphenyl, p-amino-*.
- Mascarine, action of, on the embryonic heart** (PICKERING), A., ii, 46.
- Matico-camphor, rotatory power of, in the crystalline and liquid states** (TRAUBE), A., ii, 509.
- Matrine, properties, physiological action, and salts of** (PLUGGE), A., i, 68.
- Mauve, discovery of** (HOFMANN LECTURE), T., 604; P., 1893, 138.
- Mauveine and its salts** (HOFMANN LECTURE), T., 613.  
action of ethylic iodide on (HOFMANN LECTURE), T., 617.
- Meat, influence of feeding on the composition of** (WOODS and PHELPS), A., ii, 44.
- Meat-extract, composition of** (KÖNIG and BOMER), A., ii, 83.  
estimation of gelatin in (KÖNIG), A., ii, 83; (STUTZER), A., ii, 84.  
estimation of phosphoric acid in (BALKE and IDE), A., ii, 632.
- Medlar, composition of the** (BERSCH), A., ii, 383.
- Medusa, violet pigment of the** (GRIFFITHS and PLATT), A., i, 182.
- Meerschau from Servia** (LOZANIĆ), A., ii, 252.
- Melamine, constitution of** (HOFMANN LECTURE), T., 717.
- Melaniline.** See *Diphenylguanidine*.
- Melanoximide.** See *Oxalyldiphenylguanidine*.
- Melanterite, zinciferous, from Carinthia** (BRUNLECHNER), A., ii, 256.  
from Laurion (MICHEL), A., ii, 36.
- Melibiose, an enzyme of yeast** (BAU), A., i, 453.
- Melibiose, formation of, from melitriose** (BAU), A., i, 453.  
hydrolysis of, by certain enzymes (FISCHER and LINDNER), A., i, 195.
- Melissic acid from beeswax** (MARIE), A., i, 347.  
methylic and ethylic salts (MARIE), A., i, 347.  
glyceric salts of (MARIE), A., i, 347.
- Melitriose, hydrolysis of** (BAU), A., i, 453.
- Melons.** See *Agricultural chemistry* (Appendix).
- Melting point.** See *Heat*.
- Membrane, a perfect semi-permeable** (FITZGERALD), T., 905; P., 1896, 25.
- Membranes, semi-permeable, theory of** (FITZGERALD), T., 897; P., 1896, 25.
- Memorial lectures: Helmholtz** (FITZGERALD), T., 885; P., 1896, 26.
- Hofmann** (ABEL, ARMSTRONG, PERKIN, PLAYFAIR), T., 575; P., 1893, 133.
- Lothar Meyer** (BEDSON), T., 1403; P., 1896, 119.
- Mendozite? from Argentina** (SCHICKENDANTZ), A., ii, 480.
- Menthane, C<sub>10</sub>H<sub>20</sub>** (KIJNER), A., i, 178.  
from menthol (TOLLOCZKO), A., i, 381.  
identical with hexahydrocymene (JÜNGER and KLAGES), A., i, 245.
- Menthane-1:2:6:8-tetrol.** See *Sobreritrol*.
- Menthene, from menthylic chloride** (MASSON and REYCHLER), A., i, 620.  
constitution and oxidation of (TOLLOCZKO), A., i, 381.
- Δ<sup>(9)</sup>-Menthene-1:2-diol, from trihydroxymenthane, diacetate** (GINZBERG), A., i, 447.
- Δ-Menthene-2:8-diol.** See *Sobrerol*.
- Mentheneglycol, modifications of** (TOLLOCZKO), A., i, 381.
- Menthol, heat of evaporation of** (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.  
crystalline modifications of (POPE), P., 1896, 143.  
constitution of (JÜNGER and KLAGES), A., i, 244.  
behaviour of, towards sulphuric acid (TOLLOCZKO), A., i, 381.  
sodium derivative, molecular weight of (BECKMANN and SCHLIEBS), A., i, 124.
- Menthol, 4-amino-, acetate** (TIEMANN and KRUGER), A., i, 384.  
thio- (VOSWINKEL), A., i, 379.
- Menthol, tertiary, from menthene and trichloroacetic acid** (MASSON and REYCHLER), A., i, 620.
- Menthonaphthene identical with hexahydrocymene** (JÜNGER and KLAGES), A., i, 245.
- Menthone, constitution of** (BECKMANN), A., i, 312; (BARBIER and BOUVEAULT), A., i, 492.  
heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.  
oxidation of (BECKMANN and MEHLANDER), A., i, 312.

- Menthone, 4-amino-, acetyl derivative (TIEMANN and KRÜGER), A., i, 384.
- di*bromo- (BECKMANN and EICKELBERG), A., i, 313.
- nitro- (KONOWALOFF), A., i, 177.
- sodium derivative, molecular weight of (BECKMANN and SCHLIEBS), A., i, 124.
- d*-Menthone and its semicarbazone (BECKMANN), A., i, 312.
- l*-Menthone, inversion of, and its semicarbazone (BECKMANN), A., i, 311.
- Menthonementhylhydrazone (KIJNER), A., i, 178.
- Menthoneoxime from rhodinaldoxime (BARBIER and BOUVEAULT), A., i, 491.
- d*-Menthoneoxime (BECKMANN), A., i, 311.
- behaviour of, towards phosphorus pentachloride (BECKMANN and MEHRLÄNDER), A., i, 312.
- l*-Menthoneoxime (BECKMANN), A., i, 312.
- behaviour of, towards phosphorus pentachloride and concentrated sulphuric acid (BECKMANN and MEHRLÄNDER), A., i, 312.
- Menthoximic acid, sodium, copper, silver, ethylic salts, and acetyl derivative (BECKMANN and MEHRLÄNDER), A., i, 312.
- Menthylamine, *di*bromo-, behaviour of, towards hydroxylamine (KIJNER), A., i, 178.
- Menthylhydrazine hydrochloride (KIJNER), A., i, 178.
- Menthyllic acid, oxy-. See Oxymenthyllic acid.
- Menthyllic chloride, conversion of, into menthene (MASSON and REYCHLER), A., i, 620.
- Mercaptans (Thiols). See:—
- Benzylc hydrosulphide.
- Diazobenzenemercaptohydrosulphide.
- Diazophenol hydrosulphide.
- 1 : 5-Diphenylthiobenzolone hydrosulphide.
- Ethylthiazoline hydrosulphide.
- $\alpha$ -Naphthyl mercaptan.
- Phenyl mercaptan, *o*-amino-Thiocresol (tolyl mercaptan).
- Thioeugenol.
- Thioguaiacol.
- Thionaphthol (naphthyl mercaptan).
- Thiophenol (phenyl mercaptan).
- Thioresorcinol.
- Thiothymol.
- o*- and *p*-Tolyl mercaptans.
- Mercury, line and band spectra of (EDER and VALENTA), A., ii, 2.
- Mercury, specific heat of (BARTOLI and STRACCIATI), A., ii, 145.
- solution and diffusion of metals and alloys in (HUMPHREYS), T., 250, 1679; P., 1896, 220; (ROBERTS-AUSTEN), P., 1896, 9, 219.
- Mercury haloid salts, rate of sublimation of (ARCTOWSKI), A., ii, 635.
- amidosulphonates (DIVERS and HAGA), T., 1649; P., 1896, 180.
- imidosulphonates (DIVERS and HAGA), T., 1627; P., 1896, 179.
- thiophosphite (FERRAND), A., ii, 418.
- Mercuric chloride, electrical conductivity of solutions in acetone of (LASZCZYNSKI), A., ii, 555.
- electrolytic dissociation of, in alcoholic solution (SALVADORI), A., ii, 512.
- action of iodoform on (SCHUYTEN), A., ii, 524.
- basic, artificial dendrites of (ARCTOWSKI), A., ii, 649.
- silver iodide, decomposition of, by heat (BAUR), A., ii, 146.
- oxide, identity of red and yellow (OSTWALD and MARK), A., ii, 142.
- oxy-salts, condition of, in solution (VARET), A., ii, 648.
- sulphates, equilibria between normal and hydrated basic (HOITSEMA), A., ii, 15.
- cyanide, thermochemical data of compounds of metallic bromides with (VARET), A., ii, 88.
- thermochemical data of compounds of metallic iodides with (VARET), A., ii, 148.
- combination of, with bromides and iodides (VARET), A., i, 113.
- compounds of, with metallic chlorides, composition of (VARET), A., i, 3.
- interaction of, with salts of metals of the alkalis or alkaline earths (VARET), A., i, 113.
- iodoform and alcohol, action of heat on (LONGI and MAZZOLINO), A., i, 517.
- detection of, in toxicology (VITALI), A., ii, 628.
- oxycyanides (BARTHE), A., i, 330, 331.
- Mercurous and mercuric chlorides, mutual conversion of (HADA), T., 1675; P., 1896, 183.
- nitrates, mutual conversion of (HADA), T., 1667; P., 1896, 182.



**MERCURY:—**

- Mercurous and mercuric phosphates, mutual conversion of (HADA), T., 1673; P., 1896, 182.
- sulphates, mutual conversion of (HADA), T., 1672; P., 1896, 182.
- acetates, perchlorates, and oxalates, mutual conversion of (HADA), T., 1674; P., 1896, 183.
- Mercurous iodide, decomposition of, by heat (FRANÇOIS), A., ii, 363.
- decomposition of, when dissolved in boiling alcohol (FRANÇOIS), A., ii, 301.
- decomposition of, when dissolved in boiling phenol (FRANÇOIS), A., ii, 248.
- action of aniline on. See Aniline.
- nitrite (RÂY), A., ii, 649.
- oxide and carbonate, decomposition of (HADA), T., 1677; P., 1896, 183.
- thiopyrophosphate (FERRAND), A., ii, 473.
- sulphide, decomposition of (HADA), T., 1678.
- allylhydride (KEISER), A., i, 458.
- Mercuropyridines. See Pyridines, mercurio-.
- Mercury, detection of (JANNASCH and LEHNERT), A., ii, 545.
- estimation of, in cinnabar by electrolysis (RISING and LENHER), A., ii, 338.
- estimation and detection of, in urine (JOLLES), A., ii, 77.
- separation of, from other metals (JANNASCH and LEHNERT), A., ii, 546.
- separation of, from arsenic, antimony, and copper by ignition (JANNASCH), A., ii, 675.
- separation of, electrolytically from cadmium (SMITH and WALLACE), A., ii, 220.
- separation of, from organic mixtures (JANNASCH and LEHNERT), A., ii, 546.
- Meroquinene (merochinine) (KOENIGS), A., i, 63.
- action of bromine water on (KOENIGS), A., i, 64.
- Meroquinene, bromo- (KOENIGS), A., i, 64.
- Mesaconic acid, rotatory power of the amyl salt of (WALDEN), A., ii, 633.
- heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.

- Mesaconic acid, sublimation temperature of, under small pressure (KRAFFT and DYES), A., ii, 89.
- diethylic salt, action of alcoholic ammonia on (KORNER and MENOZZI), A., i, 205.
- Mesaconic acid, bromo-, silver salt of (MICHAEL), A., i, 132.
- melting point and solubility of (MICHAEL and TISSOT), A., i, 132.
- Mesidine, nitro-, preparation of (HOFMANN LECTURE), T., 694.
- oxyphosphazo-compound of (MICHAELIS and SILBERSTEIN), A., i, 345.
- Mesitolole. See Mesitylene.
- Mesityl methyl ketone, preparation of (LUCAS), A., i, 418.
- Mesityl oxide (*methyl isobutenyl ketone*, *isopropylideneacetone*), reduction of (HARRIES and ESCHENBACH), A., i, 306; (KERP), A., i, 448.
- semicarbazone, products of distillation of (SCHOLTZ), A., i, 343.
- Mesitylaldoloxime (LUCAS), A., i, 418.
- Mesityldiazonium triiodide (HANTZSCH), A., i, 93.
- Mesitylene from acetophorone (KERP), A., i, 448.
- synthesis of (LUCAS), A., i, 418.
- composition of (HOFMANN LECTURE), T., 694.
- magnetic rotatory power, &c., of (PERKIN), T., 1064, 1130, 1193, 1241.
- Mesitylene, tribromo-, discovery of (HOFMANN LECTURE), T., 694.
- cyano- (BAUM), A., i, 222.
- nitro-, heat of combustion of (KONOWALOFF, KIKINA, and TSCHITSCHKIN), A., i, 675.
- ω*-nitro- (KONOWALOFF, KIKINA, and TSCHITSCHKIN), A., i, 674.
- labile form of (KONOWALOFF), A., i, 675.
- dinitro-, preparation of (HOFMANN LECTURE), T., 694.
- heat of combustion of (KONOWALOFF, KIKINA, and TSCHITSCHKIN), A., i, 675.
- ω*-*o*-di-nitro- (KONOWALOFF, KIKINA, and TSCHITSCHKIN), A., i, 674.
- ω*-*o*-*p*-tri-nitro- (KONOWALOFF, KIKINA, and TSCHITSCHKIN), A., i, 674.
- ω*-*o*-*o*-tri-nitro- (KONOWALOFF, KIKINA, and TSCHITSCHKIN), A., i, 674.
- Mesitylenecarboxylic acid. See *β*-isocuminic acid.

- Mesitylenesulphonic acid**, discovery of (HOFMANN LECTURE), T., 694.
- Mesitylenic acid**, *o*-nitro- (KONOWALOFF, KIKINA, and TSCHITSCHKIN), A., i, 674.
- dinitro-**, derivatives of (KONOWALOFF, KIKINA, and TSCHITSCHKIN), A., i, 674.
- Mesitylglyoxylic acid**, preparation of (LUCAS), A., i, 418.
- behaviour of, towards hydroxylamine (BAUM), A., i, 222.
- formation of oximes from salts of (MEYER), A., i, 433.
- $\alpha$ -Mesityloxidoxalic acid** (CLAISEN, TINGLE, and KERSTIENS), A., i, 561.
- etheral salts, molecular refraction and dispersion of (BRÜHL), A., i, 522.
- methylic and ethylic salts of (CLAISEN, TINGLE, and KERSTIENS), A., i, 561.
- $\beta$ -Mesityloxidoxalic acid** (CLAISEN, TINGLE, and KERSTIENS), A., i, 561.
- methylic and ethylic salts of (CLAISEN, TINGLE, and KERSTIENS), A., i, 561.
- Mesoxylic acid**, tetramethylic salt of (BISCHOFF), A., i, 468.
- Mespilus germanica*, composition of (BERSCH), A., ii, 383.
- Metabolism**, laws of (MUNK), A., ii, 43.
- action of dilute acids on (DUNLOP), A., ii, 484.
- action of the vasomotor nerves on (TANGL), A., ii, 43.
- influence of fat and starch on (WICKE and WEISKE), A., ii, 535.
- proteid, influence of muscular work on (KRUMMACHER), A., ii, 377.
- in poisoning by carbonic oxide and nitrobenzene (MÜNZER and PALMA), A., ii, 662.
- Metallic bases**, constitution of (KURNAKOFF), A., ii, 170.
- Metals**, use of electro-dissolution in purifying (WARREN), A., ii, 249.
- phenomena accompanying the discharge of electricity through the vapours of (WIEDEMANN and SCHMIDT), A., ii, 348.
- thermo-electromotive force of (DEWAR and FLEMING), A., ii, 4.
- separated from their amalgams, properties of (GUNTZ), A., ii, 421.
- compounds of oxyhæmoglobin with heavy (JUTT), A., i, 584.
- Metamaltose**. See under Maltose.
- Metasantonic acid**. See under Santonic acid.
- Metasantonin**. See under Santonin.
- Meteorite** from Cherokee mills, Georgia (HOWELL), A., ii, 193.
- from Costilla, New Mexico (HILLS), A., ii, 614.
- from El Capitan range, New Mexico (HOWELL), A., ii, 193.
- from Forsyth Co., N. Carolina (SCHWEINITZ), A., ii, 375.
- from Godhaven, Disko Island (GOLD-SMITH), A., ii, 41.
- from Lesves, Belgium (RENARD), A., ii, 614.
- from Moonbi, Tamworth, N.S.W. (MINGATE), A., ii, 193.
- from Smithville (HUNTINGTON), A., ii, 484.
- Meteorites**, amorphous carbon, graphite, and diamond in (MOISSAN), A., ii, 194.
- Methæmoglobin**. See Hæmoglobin.
- Methane**, possible occurrence of, in air (PHILLIPS), A., ii, 162.
- synthesis of, from carbon and hydrogen of (BONE and JORDAN), P., 1896, 61.
- oxidation of, by palladinised copper oxide (CAMPBELL), A., ii, 171.
- explosive mixtures of air and (CLOWES), P., 1895, 201.
- combustion of, in presence of nitrogen (DUNSTAN and CARR), P., 1896, 48.
- estimation of, in presence of hydrogen (GILL and HUNT), A., ii, 341.
- See also Marsh gas.
- Methane**, bromonitro- (SCHOLL), A., i, 535.
- dibromonitro-** (SCHOLL), A., i, 585.
- trichloronitro-**, melting point of (v. SCHNEIDER), A., ii, 290.
- nitro-, behaviour of, towards phenylhydrazine (WALTHER), A., ii, 542.
- Methaneazobenzene**, nitro-, formation of (MICHAEL), A., i, 594.
- Methanedisulphonic acid**, amino-, potassium salts of (VON PECHMANN and MANCK), A., i, 14, 15.
- iodo-, dipotassium salt of (VON PECHMANN and MANCK), A., i, 15.
- diiodo-, dipotassium salt of (VON PECHMANN and MANCK), A., i, 15.
- Methanesulphonepropionic acid**,  $\beta$ -dibromo-, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- $\beta$ -dichloro-**, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- Methenylhydrazone**, remarks on constitution of (WALKER), T., 1286.
- Methenyl-*o*-aminothiophenol**, preparation of (HOFMANN LECTURE), T., 712, 713.

- Methenyl-*o*-aminothiophenol, amyloid-  
ide, colouring matter obtained from  
(HOFMANN LECTURE), T., 714.  
chloro-, preparation of (HOFMANN  
LECTURE), T., 712.
- Methoethylheptanonolide from  $\alpha$ -pin-  
onic acid (VON BAEYER), A., i, 308.  
from pinonic acid (TIEMANN and  
SEMMLER), A., i, 309.  
a source of terpenylic acid (MAHLA  
and TIEMANN), A., i, 385.
- Methoxyacrylic acids,  $\alpha$ -*o*- and  $\beta$ -*o*-,  
magnetic rotatory powers, &c., of the  
methylic salts of (PERKIN), T., 1147,  
1228, 1247.
- Methoxyaposafranone (FISCHER and  
HEPP), A., i, 323.
- o*-Methoxybenzaldehyde (*methylsalicyl-  
aldehyde*), magnetic rotatory power,  
&c., of (PERKIN), T., 1127, 1128,  
1200, 1243.
- m*-Methoxybenzaldehydehydrazone  
(BOUVEAULT), A., i, 650.
- o*-Methoxybenzanilide (*methylsalicyl-  
anilide*) (HALLER), A., i, 32.
- o*-Methoxybenzoic acid (*methylsalicylic  
acid*), magnetic rotatory power, &c.,  
of the ethylic salt of (PERKIN), T.,  
1127, 1128, 1130, 1160, 1176, 1231,  
1238.
- phenylglyoxylamide of (MINOVICI),  
A., i, 705.
- m*-Methoxybenzoic acid, magnetic rota-  
tory power, &c., of the ethylic salt of  
(PERKIN), T., 1130, 1177, 1238.
- o*-Methoxybenzophenone and its benzo-  
ate, phenylhydrazone, and oxime  
(COHN), A., i, 440.
- o*-Methoxybenzyl alcohol (*methylsali-  
cyl alcohol*), magnetic rotatory  
power, &c., of (PERKIN), T., 1128,  
1198, 1242.
- Methoxybenzylidenemandelamide. See  
Mandelic acid, methoxybenzylidene-  
amide of.
- Methoxybromomethoxypropylbenzene  
(HELL and HOLLENBERG), A., i, 354.
- Methoxy- $\psi$ -cumenol, dibromo-  
(AUWERS), A., i, 149; (AUWERS  
and MARWEDEL), A., i, 150.  
benzoate (AUWERS and MAR-  
WEDEL), A., i, 150.
- p*-Methoxydiphenylamine, diamino-  
(FISCHER), A., i, 628.  
dinitro- (FISCHER), A., i, 628.
- 1'-Methoxyindole-2'-carboxylic acid  
(REISSERT), A., i, 390.  
3'-bromo- (REISSERT), A., i, 390.
- 1-Methoxy- $\psi$ -isatin and its phenyl-  
hydrazone (REISSERT), A., i, 390.
- $\beta$ -Methoxynaphthalene (THIELE and  
MEYER), A., i, 407.
- $\mu$ -Methoxypentiazoline,  $\gamma$ -bromo-  
(DIXON), T., 32; P., 1895, 217.
- Methoxyphenazine, *syn-p*-amino- (FIS-  
CHER), A., i, 628.
- Methoxyphenyl ethyl ketone, *mono*-,  
*di*-, and *tri*-bromo- (HELL and HOL-  
LENBERG), A., i, 354.
- o*-Methoxyphenylcrotonic acid  
(MOUREU), A., i, 647.
- m*-Methoxyphenylcrotonic acid  
(MOUREU), A., i, 647.
- 3'-*o*-Methoxyphenylketotetrahydroquin-  
azoline (BUSCH, BRUNNER, and  
BIRK), A., i, 160.
- p*-Methoxyphenylmalonamic acid and  
its ethylic salt (CASTELLANETA), A.,  
i, 368.
- p*-Methoxyphenyloxamic acid and its  
ethylic salt (CASTELLANETA), A., i,  
368.
- $\beta$ -Methoxy- $\beta$ -phenylpropionic acid,  
 $\alpha$ -iodo- (ERLENMEYER), A., i, 302.
- $\beta$ -Methoxyphenyl- $\mu$ -propylphenylox-  
azole and its salts (MINOVICI), A., i,  
704.
- $\beta$ -Methoxyphenyl- $\mu$ -styryloxazole and  
its salts (MINOVICI), A., i, 704.
- p*-Methoxyphenylsuccinamic acid  
(PIUTTI), A., i, 223.
- p*-Methoxyphenylsuccinimide (PIUTTI),  
A., i, 223.  
compound of, with potassium iodide  
and iodine (PIUTTI), A., i, 364.
- 3'-*o*-Methoxyphenylthiotetrahydroquin-  
azoline (BUSCH, BRUNNER, and BIRK),  
A., i, 160.
- 1' : 3'-Methoxypropylisoquinoline and  
its salts (ALBAHARY), A., i, 699.
- 3-Methoxyquinoline, 4'-amino-, and its  
salts (HIRSCH), A., i, 626.  
4'-chloro-, and its salts (HIRSCH), A.,  
i, 626.
- p*-Methoxytriphenyltetrazolium chloride  
(WEDEKIND), A., i, 631.
- $\omega$ -Methoxy-1 : 3 : 4-xylenol, tribromo-  
(AUWERS and CAMPENHAUSEN), A.,  
i, 424.
- Methyl anilidobutyl ketone, platino-  
chloride of, and its oxime and phenyl-  
hydrazone (LIPP), A., i, 317.
- Methyl benzamidobutyl ketone and its  
oxime (LIPP), A., i, 317.
- Methyl isobutenyl ketone. See Mesityl  
oxide.
- Methyl butyl ketone, heat of evaporation  
of (LONGUININE), A., ii, 146.
- Methyl isobutyl ketone (GLÜCKSMANN),  
A., i, 333.
- Methyl *tert*-butyl ketone, uncertainty  
as to the identity of pinacoline with  
(DELAERE), A., i, 591, 662.

- Methyl chloro-*sec*-isobutyl ketone (KONDAKOFF), A., i, 462.
- Methyl chloropropyl ketone (KONDAKOFF), A., i, 462.
- Methyl ethyl ketone, heat of evaporation of (LUGININ), A., ii, 146.  
products of distillation of the semicarbazone of (SCHOLTZ), A., i, 343.
- Methyl  $\alpha$ -ethylpropyl ketoxime (BORN), A., i, 199.
- Methyl hexyl ketone (BORN), A., i, 199.
- Methyl hydroxyethyl ketone,  $\alpha$ -dibromo- (WOLFF and SCHWABE), A., i, 522.  
*tri*-bromo-, and its behaviour with sodium carbonate (WOLFF and SCHWABE), A., i, 522.
- Methyl propenyl ketone (KONDAKOFF), A., i, 462.
- Methyl propyl ketone, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.  
products of distillation of the semicarbazone of (SCHOLTZ), A., i, 343.
- Methyl isopropyl ketone, heat of evaporation of (LUGININ), A., ii, 146.
- Methyl propylidene-ethyl ketone (KONDAKOFF), A., i, 462.
- Methyl isopropyl ketone (IPATIEFF), A., i, 401.
- Methylacetoacetic acid, ethylic salt, action of sodium ethoxide and bromethylphenyl ether on (BENTLEY, HAWORTH, and PERKIN), T., 172; P., 1896, 36.  
condensation of, with ethylic chlorofumarate (RUHEMANN and WOLFF), T., 1384; P., 1896, 166.  
rate of formation of (BISCHOFF), A., i, 85.  
products of the bromination of (FREER), A., i, 277.
- methylic salt, action of bromine on (CONRAD and KREICHGAUER), A., i, 409.
- Methylacetoacetic acid, bromo-, ethylic salts, oxidation of (FREER), A., i, 277.
- $\alpha$ -bromo-, methylic salt (CONRAD and KREICHGAUER), A., i, 409.
- Methylacetonedicarboxylic acid, ethylic salt of: its compound with phenylhydrazine (PETRENKO-KRITSCHENKO and EPHRUSSI), A., i, 135; (PETRENKO-KRITSCHENKO), A., i, 258.
- Methylacetylene. See Allylene.
- $\beta$ -Methyladipic acid from citronellaldehyde (BARBIER and BOUVEAULT), A., i, 492.  
from 2 : 6-dimethyloctan-3-ol-ic acid (VON BAEYER), A., i, 247.
- $\beta$ -Methyladipic acid from oxidation of rhodinol (BARBIER and BOUVEAULT), A., i, 446.
- d*- $\beta$ -Methyladipic acid from citronellaldehyde (TIEMANN and SCHMIDT), A., i, 383.
- l*- $\beta$ -Methyladipic acid from rhodinol (TIEMANN and SCHMIDT), A., i, 384.
- Methylal, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- Methylalldithiourazole: its hydrochloride and acetyl derivative (FREUND and HEILBRUN), A., i, 415.
- Methylallylhexenylcarbinol. See Hendeciyl alcohols.
- $\mu$ -Methylallylsuccinic acid, conversion of, into paramethylcarboxylactonic acid (HJELT), A., i, 600.
- para*-Methylallylsuccinic acid, conversion of, into paramethylcarboxylactonic acid (HJELT), A., i, 600.
- Methylallylthiocarbamide, action of bromine on (DIXON), T., 852.
- dibromide* of (GADAMER), A., i, 140.  
*chlorobromide* of (GADAMER), A., i, 140.
- Methylamine, discovery of (HOFMANN LECTURE), T., 656.  
preparation of, from formaldehyde and ammonium chloride (BROCHET and CAMBIER), A., i, 7; (TRILLAT), A., i, 407.  
hydrochloride (LUXMOORE), T., 184; (DELÉPINE), A., i, 589.  
picrate (DELÉPINE), A., i, 589.
- Methylamine, nitroso- (THIELE and MEYER), A., i, 407.
- Methylamines, separation of, by means of formaldehyde (DELÉPINE), A., i, 519, 520.
- Methylaminoformic acid, methylic and ethylic salts, action of nitric acid on (FRANCHIMONT), A., i, 602.
- 5-Methylamino-1-methyltetrazole: its aurochloride and platinochloride (THIELE and INGLE), A., i, 108.
- Methylamylacetylene. See Ocinene.
- Methylisoamylamine and its salts (STOERMER and VON LEPEL), A., i, 664.  
benzoyl derivative (STOERMER and VON LEPEL), A., i, 664.  
methylisoamylidithiocarbamate (STOERMER and VON LEPEL), A., i, 664.  
nitroso-derivative (STOERMER and VON LEPEL), A., i, 664.
- Methylamylaminoacetone and its methiodide (STOERMER and POGGE), A., i, 408.

- Methylisoamylcarbamide (STOERMER and VON LEPEL), A., i, 664.
- Methylanemonin. See Anemonin.
- Methylaniline (HOFMANN LECTURE), T., 598.
- preparation of (HOFMANN LECTURE), T., 624, 625.
- magnetic rotatory power, &c., of (PERKIN), T., 1099, 1207, 1244.
- Methylaniline, bromonitro- (EVANS), P., 1895, 236.
- tribromo- (EVANS), P., 1895, 235.
- nitramino-, azoimide from (ZINCKE and HELMERT), A., i, 301.
- Methylanilines, colouring matters obtained from (HOFMANN LECTURE), T., 623.
- Methylazimidobenzoic acid (ZINCKE and HELMERT), A., i, 550.
- o*-Methylazobenzene (JACOBSON and LISCHKE), A., i, 96.
- m*-Methylazobenzene (JACOBSON and NANNINGA), A., i, 97.
- Methylbenzazonine, formation of (DUNSTAN, TICKLE, and JACKSON), P., 1896, 159.
- salts of, hydrolysis of (DUNSTAN, TICKLE, and JACKSON), P., 1896, 160.
- N*-Methylbenzantialdoxime and its hydrobromide (LUXMOORE), T., 183; P., 1895, 149.
- hydriodide (LUXMOORE), T., 185.
- N*-Methylbenzsynaldoxime and its hydrobromide (LUXMOORE), T., 184, 185; P., 1895, 149.
- Methylbenzamide imidochloride (VON PECHMANN), A., i, 31.
- 1 : 3 : 4-Methylbenzenedicarboxylic acid. See  $\alpha$ -Methylphthalic acid.
- Methylantibenzhydroxamic acid, phosphate, and benzenesulphonate and benzoyl, dinitrophenyl, *p*-methoxybenzoyl, and carbanilido-derivatives (WERNER and SUBAK), A., i, 431.
- Methylsynbenzhydroxamic acid and its benzoyl, dinitrophenyl, *p*-methoxybenzoyl, and carbanilido-derivatives (WERNER and SUBAK), A., i, 431.
- 2-Methylbenzidine: its hydrochloride and diacetyl, dibenzylidene and diortho-hydroxybenzylidene derivatives (JACOBSON and NANNINGA), A., i, 97.
- 3-Methylbenzidine and its dibenzylidene derivative (JACOBSON and LISCHKE), A., i, 97.
- p*-Methylbenzoylpropionic acid (MUHR), A., i, 231.
- p*-Methylbenzylamine: its picrate, acetyl, and benzoyl derivatives (LUSTIG), A., i, 163.
- m*-amino-, salts of (LUSTIG), A., i, 163.
- p*-Methylbenzylamine, nitro-, salts of (LUSTIG), A., i, 163.
- p*-Methylbenzylbenzamide, *m*-nitro- (LUSTIG), A., i, 163.
- Methylbetainepyridine-3 : 4-dicarboxylic acid. See Apophyllenic acid.
- Methylbutylacetylene. See Heptinenes.
- Methylbutylamine (FRANCHIMONT and VAN ERP), A., i, 275.
- Methylisobutylamine and its salts (STOERMER and VON LEPEL), A., i, 662.
- benzoyl derivative (STOERMER and VON LEPEL), A., i, 664.
- methylisobutyldithiocarbamate (STOERMER and VON LEPEL), A., i, 663.
- Methylisobutylamine, nitroso- (STOERMER and VON LEPEL), A., i, 662.
- Methylbutylaminoacetone (STOERMER and POGGE), A., i, 408.
- m*-Methylisobutylbenzene, 2 : 4 : 6-*tri*-nitro- (KNOEVENAGEL), A., i, 288.
- Methylisobutylcarbamide (STOERMER and VON LEPEL), A., i, 662.
- Methylisobutylcarbinol. See Hexylic alcohols.
- 1 : 3-Methylisobutylcyclohexadiene (*m*-methylisobutyldihydrobenzene) (KNOEVENAGEL), A., i, 288.
- 5-chloro- (GUNDLICH and KNOEVENAGEL), A., i, 213.
- 1-Methyl-3-isobutylcyclohexanone, action of phosphorus pentachloride on (GUNDLICH and KNOEVENAGEL), A., i, 212.
- 1 : 3-Methylisobutylcyclohexenol-5 and its acetyl derivative, methylic ether and isopropyl ether (KNOEVENAGEL), A., i, 287.
- 3 : 5-Methylisobutyl- $\Delta_2$ -cyclohexenone: its oxime, benzoyl derivatives, and its phenylhydrazone (KNOEVENAGEL), A., i, 211.
- 3 : 5-Methylisobutyl- $\Delta_2$ -cyclohexenone-4-carboxylic acid, ethylic salt of: its oxime and benzoyl derivatives (KNOEVENAGEL), A., i, 211.
- 3 : 5-Methylisobutyl- $\Delta_2$ -cyclohexenone-6-carboxylic acid, ethylic salt of, phenylhydrazone of (KNOEVENAGEL), A., i, 211.
- 3 : 5-Methylisobutyl- $\Delta_2$ -cyclohexenone, 4 : 6-dicarboxylic acid, ethylic salt of: its oxime and benzoyl derivatives (KNOEVENAGEL), A., i, 211.
- Methylbutylhydrazine (FRANCHIMONT and VAN ERP), A., i, 275.
- Methylisobutylhydrazine, carbamide of (STOERMER and VON LEPEL), A., i, 664.

- Methylisobutylketotetrahydrobenzene.  
See Methylisobutylcyclohexenone.
- Methylbutylnitramine, reduction products of (FRANCHIMONT and VAN ERP), A., i, 275.
- Methylbutylnitrosamine (FRANCHIMONT and VAN ERP), A., i, 275.
- Methylbutyloxamic acid (FRANCHIMONT and VAN ERP), A., i, 275.
- 3 : 5-Methylisobutylphenol (KNOEVENAGEL), A., i, 211.
- tribromo- (KNOEVENAGEL), A., i, 211.
- Methylbutyltetrazone (FRANCHIMONT and VAN ERP), A., i, 275.
- $\alpha$ -Methylbutyric acid. See Valeric acids.
- Methylbutyrolactones. See Valerolactones.
- Methyl- $\beta$ -camphoramic acid, from camphormethylimide (HOGEWERFF and VAN DOEP), A., i, 314.
- Methylcarbamide, action of benzaldehyde on (SCHIFF), A., i, 530.
- $\mu$ -Methylcarbocaprolactonic acid, barium salt (HJELT), A., i, 600.
- para*-Methylcarbocaprolactonic acid, barium salt (HJELT), A., i, 600.
- $\alpha$ -Methylcarboxyglutaric acid. See Butane- $\gamma\gamma$ -tricarboxylic acid.
- Methylcitraconic acid (SPENZER), A., i, 128.
- Methylcusparine (BECKURTS), A., i, 66.
- Methyl-desmotroposantonin, preparation and properties of (ANDREOCCI), A., i, 182.
- Methylis-desmotroposantonin (ANDREOCCI), A., i, 182.
- reduction of (ANDREOCCI), A., i, 184.
- Methyl-desmotroposantonous acid and its ethylic salt (ANDREOCCI), A., i, 185.
- Methyldiethenyltetraminobenzene and its mercuriochloride (SCHUSTER and PINNOW), A., i, 428.
- Methyldiethylamine, preparation of (HOFMANN LECTURE), T., 670.
- Methyldiethylamylammonium hydroxide, action of heat on (HOFMANN LECTURE), T., 666.
- Methyldiethylisamylammonium platinochloride, crystalline form of (HOFMANN LECTURE), T., 671.
- 2-Methyldihydrofurfuran-3 : 4-dicarboxylic acid, ethylic salt (RUHEMANN and WOLFF), T., 1393.
- 2-Methyldihydrofurfuran-3 : 4-dicarboxylic acid, ethylic salt of (RUHEMANN and WOLFF), T., 1392.
- 2-Methyldihydrofurfuran-3 : 4 : 5-tricarboxylic acid, ethylic salt (RUHEMANN and TYLER), T., 532; P., 1896, 73.
- m*-Methyldihydroresorcinol. See 3 : 5 : 1-Dihydroxymethylcyclohexadiene.
- p*-Methyldihydroxybenzenesulphonic acid and its ammonium salt (JONES), A., i, 50.
- 5-Methyl-1 : 3-diketocyclohexane-4 : 6-dicarboxylic acid, diethylic salt of (KNOEVENAGEL), A., i, 289.
- 2-Methyl-4 : 6-dioxytriazine (*acetoguanamide*) and its hydrochloride and platinochloride, its silver and lead derivatives (OSTROGOVICH), A., i, 261, 393.
- tribromo- (OSTROGOVICH), A., i, 262.
- Methyldiphenyl. See Phenyltoluene.
- Methyldiphenylamine, magnetic rotatory power, &c., of (PERKIN), T., 1101, 1157, 1208, 1232, 1244.
- $\alpha$ -Methyl- $\gamma$ -diphenylitaconic acid and its monethylic salt (STOBBE), A., i, 235.
- Methyl- $\alpha$ -ecgonine, benzoyl derivative of (WILLSTATTER), A., i, 708.
- methiodide, formation of, and its salts (WILLSTATTER), A., i, 708.
- Methyleneaminoacetonitrile (CURTIUS), A., i, 337.
- Methylenebisacetonedicarboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 212.
- Methylene-blue, detection of, in wines (BELAR), A., ii, 630.
- Methylenecaffeic acid, bromo-, preparation of, and its silver salt (MOUREU), A., i, 477.
- o*-Methylenedioxybenzene (MOUREU), A., i, 477.
- Methylenediurethane (CURTIUS), A., i, 35.
- Methylenemucic acid (HENNEBERG and TOLLENS), A., i, 645.
- Methylenepentaglycol (APEL and TOLLENS), A., i, 115.
- 1 : 4-Methylenepiperazine (ROSDALSKY), A., i, 257.
- Methylenesaccharic acid and the action of alkalis on (HENNEBERG and TOLLENS), A., i, 645.
- ethylic salt (HENNEBERG and TOLLENS), A., i, 645.
- Methylenetartaric acid (HENNEBERG and TOLLENS), A., i, 645.
- Methylene, trioxy-. See Trioxymethylene.
- Methylenic diiodide, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1173, 1237.
- diiodide and dichloride, action of sodium phenoxide on (BENTLEY,

- HAWORTH, and PERKIN), T., 166, 167.
- Methylethenylacetamidophenylene-amidine (SCHUSTER and PINNOW), A., i, 427.
- nitro- (SCHUSTER and PINNOW), A., i, 428.
- Methylethenylaminophenyleneamidine and its picrate (SCHUSTER and PINNOW), A., i, 427.
- Methylethenyldiazophenyleneamidine, colouring matter obtained from, with  $\beta$ -naphthylamine (SCHUSTER and PINNOW), A., i, 428.
- Methylethenylphenyleneamidine, nitramino- (SCHUSTER and PINNOW), A., i, 428.
- Methylethylacetaldehyde. See Valeraldehyde.
- Methylethylacetic acid. See Valeric acids.
- Methylethylacroleinantranilic acid (NIEMENTOWSKI and ORZECOWSKI), A., i, 187.
- $\mu$ -Methylethylbenzene (*p*-ethyltoluene), preparation of (BAYRAC), A., i, 474.
- o*-bromo- (DEFREN), A., i, 90.
- di*bromo- (DEFREN), A., i, 91.
- chloro- (DEFREN), A., i, 90.
- di*chloro- (DEFREN), A., i, 90.
- p*-Methylethylbenzenesulphonamide (DEFREN), A., i, 90.
- o*-bromo- (DEFREN), A., i, 91.
- p*-Methylethylbenzenesulphonic acid and salts (DEFREN), A., i, 90.
- o*-bromo-, and salts (DEFREN), A., i, 91.
- chloro-, and salts (DEFREN), A., i, 91.
- $\mu$ -Methylethylbenzenesulphonic chloride (DEFREN), A., i, 90.
- o*-bromo- (DEFREN), A., i, 91.
- chloro- (DEFREN), A., i, 91.
- $\mu$ -Methylethylbenzene-*o*-sulphonic acid, barium salt of (BAYRAC), A., i, 474.
- $\mu$ -Methylethylbenzene-*m*-sulphonic acid, barium salt of (BAYRAC), A., i, 474.
- $\mu$ -Methylethylbenzonitrile (DEFREN), A., i, 90.
- $\beta$ -Methylethylene- $\psi$ -thiocarbamide. See Propylene- $\psi$ -thiocarbamide.
- $\alpha$ -Methylethylene- $\psi$ -thiourea, hydrobromide of (DIXON), T., 23.
- Methylethylene. See Amylene.
- Methylethylhydantoin (*ethyl-lactyl-carbamide*) (DU VILLIER), A., i, 89.
- 1 : 4 : 2-Methylethylphenol (*p*-ethyl-*o*-cresol) (BAYRAC), A., i, 474.
- 1 : 4 : 3-Methylethylphenol (*p*-ethyl-*m*-cresol) (BAYRAC), A., i, 474.
- 2 : 5-Methylethylpiperidine. See Copellidine.
- 1-Methylethyl-4-*isopropyl*benzene (*ethylcymene*), preparation of (BOUVEAULT), A., i, 616.
- Methyl- $\alpha$ -ethylpropylmethane. See Heptane.
- 2 : 5-Methylethylpyridine. See Collidine.
- 3 : 2-Methylethylpyridine from meroquinene (KOENIGS), A., i, 63.
- 3'-Methyl-2'-ethylquinoline (NIEMENTOWSKI and ORZECOWSKI), A., i, 188.
- 3'-Methyl-2-ethylquinoline-1-carboxylic acid (NIEMENTOWSKI and ORZECOWSKI), A., i, 187.
- Methylethylsuccinic acid (MICHAEL), A., i, 597.
- Methylethylsuccinic acid, asymmetric, and its *p*-tolil (AUWERS and SCHLOSSER), A., i, 640.
- Methyleugenol, synthesis of (MELDOLA, WOOLCOTT, and WRAY), T., 1321.
- $\delta$ -Methylfurfuraldehyde (FISCHER and HERBORN), A., i, 588.
- oxide (KIERMAYER), A., i, 144.
- aldoxime of (KIERMAYER), A., i, 145.
- anilide of (KIERMAYER), A., i, 144.
- phenylhydrazone of (KIERMAYER), A., i, 144.
- Methylfurfurandicarboxylic acid, ethylic salt of (RUHEMANN and WOLFF), T., 1388; P., 1896, 166.
- $\alpha$ -Methylglutaranil, bimolecular (AUWERS and TITHERLEY), A., i, 642.
- $\alpha$ -Methylglutaranilic acids (AUWERS and TITHERLEY), A., i, 642.
- $\alpha$ -Methylglutaric acid and its anhydride (AUWERS and TITHERLEY), A., i, 642.
- $\alpha$ -Methylglutaro- $\beta$ -naphthil, bimolecular (AUWERS and TITHERLEY), A., i, 642.
- $\alpha$ -Methylglutaro- $\beta$ -naphthilic acid (AUWERS and TITHERLEY), A., i, 642.
- $\alpha$ -Methylglutaro-*p*-tolil, bimolecular (AUWERS and TITHERLEY), A., i, 642.
- $\alpha$ -Methylglutaro-*p*-tolilic acids (AUWERS and TITHERLEY), A., i, 642.
- Methylglyoxime (HANTZSCH and WILD), A., i, 285; (SCHOLL and MATHATOPoulos), A., i, 520.
- Methylgranatoline, oxidation of (CIAMICIAN and SILBER), A., i, 397.
- Methyl-6-heptadiene, 1 : 3-. See Octinenes.

- Methylheptenone, natural, source of (BARBIER and BOUVEAULT), A., i, 55.
- and its semicarbazone (BARBIER and BOUVEAULT), A., i, 638.
- behaviour of, towards ethylic iodoacetate (BARBIER and BOUVEAULT), A., i, 445.
- n*-Methylhexahydrocinchomeronic acid (KORNIGS and WOLFF), A., i, 699.
- Methylcyclohexane (*hexahydrotoluene*) (ZELINSKY and GENEROSOFF), A., i, 351.
- m*-iodo- (WALLACH), A., i, 310.
- cis-p*-Methylcyclohexanecarboxylic acid (*cis-hexahydro-p-toluic acid*), *exo*-amino-, and its salts (EINHORN), A., i, 551.
- 1 : 2-Methylcyclohexanol (ZELINSKY and GENEROSOFF), A., i, 350.
- 1 : 3-Methylcyclohexanol (WALLACH), A., i, 310.
- 1 : 2-Methylcyclohexanone (ZELINSKY and GENEROSOFF), A., i, 350.
- 1 : 3-Methylcyclohexanone from *isopulegone* (TIEMANN and SCHMIDT), A., i, 383.
- from pulegone and formic acid, semicarbazone and oxime (WALLACH), A., i, 309.
- oxidation of (WALLACH), A., i, 310.
- di*isonitroso-, diacetate (VON BAEYER), A., i, 445.
- tri*isonitroso-, anhydride, and its acetate (VON BAEYER), A., i, 445.
- Methylcyclohexene (*tetrahydrotoluene*) from *m*-iodohexahydrotoluene (WALLACH), A., i, 310.
- 1 : 3-Methylcyclohexenol and its acetyl derivative, urethane, and chloride (KNOEVENAGEL), A., i, 287.
- 1 : 3-Methylhexylcyclohexadiene (1 : 3-*methylhexyldihydrobenzene*) (KNOEVENAGEL), A., i, 289.
- 5-chloro- (GUNDLICH and KNOEVENAGEL), A., i, 213.
- 1 : 3-Methylhexylcyclohexenol-5 and its acetyl derivative, methyl ether (KNOEVENAGEL), A., i, 287.
- 3 : 5-Methylhexyl- $\Delta_2$ -cyclohexenone: its oxime, benzoyl, and phenylhydrazine (KNOEVENAGEL), A., i, 211.
- 3 : 5-Methylhexyl- $\Delta_2$ -cyclohexenone-4-carboxylic acid, ethylic salt of: its oxime and benzoyl derivatives (KNOEVENAGEL), A., i, 211.
- 3 : 5-Methylhexyl- $\Delta_2$ -cyclohexenone-6-carboxylic acid, ethylic salt of, and its phenylhydrazine (KNOEVENAGEL), A., i, 211.
- 3 : 5-Methylhexyl- $\Delta_3$ -cyclohexenone-4-6-dicarboxylic acid, ethylic salt of: its oxime and benzoyl derivatives (KNOEVENAGEL), A., i, 211.
- Methylhexylmethane. See Octane.
- 3 : 5-Methylhexylphenol (KNOEVENAGEL), A., i, 212.
- tribromo*- (KNOEVENAGEL), A., i, 212.
- p*-Methylhomostropine (MERCK), A., i, 65.
- Methylhydrastamide, physiological action of (FALK), A., ii, 201.
- Methylhydrastimide, physiological action of (FALK), A., ii, 201.
- Methylhydrazine (THIELE and MEYER), A., i, 407.
- o*-Methylhydrazobenzene (JACOBSON and LISCHKE), A., i, 96.
- m*-Methylhydrazobenzene (JACOBSON and NANNINGA), A., i, 97.
- Methylhydrocotoin, crystallography of (NEGRI), A., i, 655.
- $\beta$ -Methylhydroxylamine hydrochloride (LUXMOORE), T., 183.
- Methylic alcohol, production of, from various woods (BABILLOT), A., i, 403.
- purification of (SCHALL), A., ii, 463.
- action of light on (RICHARDSON and FORTEY), T., 1351; P., 1896, 164.
- electrolytic conductivity of salts and acids dissolved in (CARRARA), A., ii, 511.
- heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- boiling point of solutions of salts in (WOELFER), A., ii, 237.
- products of the limited combustion of (BROCHET), A., i, 277.
- action of, on aconitine (DUNSTAN, TICKLE, and JACKSON), P., 1896, 159.
- influence of, in the nutrition of plants (KINOSHITA), A., ii, 54.
- Methylic  $\alpha\beta$ -dibromallylic ether (LESPIEU), A., i, 332.
- Methylic iodide, preparation of (ORLOFF), A., i, 635.
- heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- action of hydroxylamine on (DUNSTAN and GOULDING), T., 839; P., 1896, 72.
- Methylic methylacetylenic ether and its bromo-derivative (LESPIEU), A., i, 332.
- Methylic nitrate, preparation of (DELLÉPINE), A., i, 586.
- Methylic nitrosoferrocyanide (HOFMANN), A., i, 269.



- Methylic  $\alpha\beta\beta$ -tribromopropyl ether (LESPIEU), A., i, 332.
- Methylic  $\beta\beta\gamma$ -tribromopropyl ether (LESPIEU), A., i, 332.
- $\mu$ -Methylimidazoline, action of phenylthiocarbimide on (DIXON), T., 34; P., 1895, 217.
- action of *o*-tolylthiocarbimide on (DIXON), T., 35; P., 1895, 217.
- $\mu$ -Methylimidazolylphenylthiourea (DIXON), T., 34; P., 1895, 217.
- action of alkaline lead tartrate on (DIXON), T., 35; P., 1895, 217.
- $\mu$ -Methylimidazolyl-*o*-tolylthiourea (DIXON), T., 35; P., 1895, 217.
- $\beta$ -Methyliminophenylpropionic acid, ethylic salt (GOLDSCHMIDT), A., i, 231.
- 3-Methylindazole; its nitrosamine and pierate (GABRIEL and STELZNER), A., i, 320.
- 1-amino-, and its dibenzoyl derivative (GABRIEL and STELZNER), A., i, 320.
- 4: 1-chloramino-, and its acetyl derivative (GABRIEL and STELZNER), A., i, 320.
- 1-nitro- (GABRIEL and STELZNER), A., i, 320.
- 3-Methylindophenazine and its 1'-acetyl derivative (SCHUNCK and MARCHLEWSKI), A., i, 236.
- Methylitaconic acid (SPENZER), A., i, 128.
- barium salt (FITTIG), A., i, 599.
- 1-Methylketo-hexamethylene. See 1-Methylcyclohexenone.
- Methylketole. See Methyl hydroxyethyl ketone.
- 5-Methylketoisooxazolone-4-phenylhydrazine (SCHIFF), A., i, 83.
- $\beta$ -Methylketopentamethylene. See Methylcyclopentanone.
- $\beta$ -Methyl- $\beta$ -lactylcarbamide and its acetyl derivative (WEIDEL and ROITHNER), A., i, 470.
- action of hydrochloric acid on (WEIDEL and ROITHNER), A., i, 470.
- Methyllevulinic acid, ethylic salt, and potassium cyanide, action of sulphuric acid on (MONTEMARTINI), A., i, 667.
- Methyluteolin, preparation of (PERKIN), T., 211; P., 1896, 37.
- Methylmalonic acid (*iso-succinic acid*), ethereal salts, action of sodium ethoxide and ethylene dibromide on (BENTLEY, HAWORTH, and PERKIN), T., 162.
- ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- Methylmalonic acid, ethylic salt, rate of hydrolysis of (HJELT), A., i, 598.
- action of ethylenic bromide on (BISCHOFF), A., i, 129.
- sodio-, ethylic salt, action of allylic salts of  $\gamma$ -chlorobutyric acid on (MONTEMARTINI), A., i, 667.
- action of bromo- or chloroethyl phenyl ether on (BENTLEY, HAWORTH, and PERKIN), T., 171; P., 1896, 36.
- action of ethylic  $\alpha$ -bromopropionate,  $\alpha$ -bromobutyrate,  $\alpha$ -bromoisobutyrate, and  $\alpha$ -bromoisovalerate on (BISCHOFF), A., i, 467.
- action of methylic and ethylic chloromalonate and bromomalonate on (BISCHOFF), A., i, 527.
- action of ethylic  $\beta$ -iodopropionate on (AUWERS and TITHERLEY), A., i, 642.
- behaviour of, towards ethylic  $\alpha$ -bromoisovalerate (BENTLEY, PERKIN, and THORPE), T., 284; P., 1896, 65.
- action of isopropyl bromide on (PERKIN), T., 1477.
- action of trimethylene bromide on (BISCHOFF), A., i, 130.
- Methylmalonic anhydride, bromo-, action of aniline on (AUWERS, SCHIFFER, and SINGHOFF), A., i, 644.
- Methylmesaconic acid. See Dimethylfumaric acid.
- 1: 4-Methylmethoxyethyl-5-cyclohexanol, 4-amino-. See Menthol, amino-.
- 1: 4-Methylmethoxyethyl-5-cyclohexanone, 4-amino-. See Menthone, amino-.
- Methylmorphimethine methohydroxide, decomposition of (VONGERICHTEN), A., i, 264.
- Methylnarcotamide, physiological action of (FALK), A., ii, 201.
- Methylnarcotimide, physiological action of (FALK), A., ii, 201.
- Methylnitramine, reduction of (THIELE and MEYER), A., i, 407.
- action of fused potash on (VAN ERF), A., i, 276.
- action of  $\beta$ -naphthol and aluminium on (THIELE and MEYER), A., i, 407.
- Methylnitrazimidobenzene, from nitrazimidobenzene, identity of, with derivative from nitraminomethylaniline (ZINCKE and HELMERT), A., i, 301.

- Methylnorisonarcotine, preparation and properties of, and salts (LIEBERMANN), A., i, 711.
- Methylnoropiananilidic acid and its sodium salt (LIEBERMANN), A., i, 683.
- Methylnoropianic acid (LIEBERMANN), A., i, 682.  
 action of, on hydrocotarnine (LIEBERMANN), A., i, 711.  
 tetrahydroquinoline derivative of, and its sodium salt (LIEBERMANN), A., i, 683.
- Methylnoropian- $\alpha$ -naphthalidic acid (LIEBERMANN), A., i, 683.
- Methylnoropian- $\beta$ -naphthalidic acid and its sodium salt (LIEBERMANN), A., i, 682.
- Methylnoropian-*p*-toluidic acid (LIEBERMANN), A., i, 683.
- Methyloctylnitramine (FRANCHIMONT and VAN ERP), A., i, 298.
- 5-Methylisoozalone, oxime of (JOVITSCHITSCH), A., i, 83.  
 4-nitro- (JOVITSCHITSCH), A., i, 82.  
 4-oximido- (JOVITSCHITSCH), A., i, 81.
- $\mu$ -Methyl- $\beta$ -oxythiazole- $\alpha$ -carboxylic acid, the ureide, ammonium, sodium, barium, and silver salts of (WEIDEL and NIEMIŁOWSKI), A., i, 106.
- Methylparaconic acid, products of distillation of (SPEYER), A., i, 128.
- Methylpelloitine, preparation of (HEFFTER), A., i, 267.
- $\beta$ -Methylcyclopentanone ( *$\beta$ -methylketopentamethylene*), condensation of, with benzaldehyde and acetone (WALLACH), A., i, 573.
- 3-Methylcyclopentane-1-carboxylic acid (*3-methylpentamethylene-1-carboxylic acid*): its calcium and silver salt (EULER), A., i, 145.
- 3-Methylcyclopentane-1 : 1-dicarboxylic acid (*3-methylpentamethylene-1 : 1-dicarboxylic acid*) (EULER), A., i, 145.
- $\mu$ -Methylpenthiazoline,  $\gamma$ -bromo-, and its pierate (DIXON), T., 853; P., 1896, 100.  
 action of silver nitrate on (DIXON), T., 853.  
 hydrobromide (DIXON), T., 852; P., 1896, 100.  
 action of caustic potash on (DIXON), T., 853; P., 1896, 100.  
 action of silver chloride on (DIXON), T., 853.  
 hydrochloride (DIXON), T., 853.
- 4-Methylpenthiazoline 2-ethosulphide (LUCHMANN), A., i, 545.  
 2-hydrosulphide and its salts (LUCHMANN), A., i, 545.
- $\mu$ -Methylphenanthridine: its hydrochloride, mercuriochloride, pierate, methiodide, platinochloride, aurochloride, and dichromate (PICTET and HERBERT), A., i, 52, 483.
- Methylphenofluorindine and its dihydrochloride (KEHRMANN and BÜRGIN), A., i, 513.
- $\alpha$ -Methylphthalic acid (1 : 3 : 4-methylbenzenedicarboxylic acid), from dimethylnaphthalene (COLLIE and WILSMORE), T., 299; P., 1896, 47.
- 1 : 2 : 4-Methylisophthalic acid and its methylic salt (BENTLEY and PERKIN), P., 1896, 79.
- $\beta$ -Methylpicolinic acid and its hydrochloride and platinochloride (ZINCKE and WINZHEIMER), A., i, 500.
- $\alpha$ -Methylpimelic acid and its ethylic salt (ZELINSKY and GENEROSOFF), A., i, 350.
- $n$ -Methylpipercolinic acid, ethylic salt: its methiodide, aurochloride of the methiodide (WILLSTÄTTER), A., i, 319.
- Methylpiperidinedicarboxylic acid and granatic acid, identity of (CIAMICIAN and SILBER), A., i, 397.
- Methylisopropylacetic acid. See Hexoic acids: Trimethylpropionic acid.
- $\alpha\alpha$ -Methylisopropyladipic acid (BENTLEY, HAWORTH, and PERKIN), T., 161.
- Methylpropylamine and its salts (STOERMER and VON LEPEL), A., i, 663.  
 methylpropyldithiocarbamate (STOERMER and VON LEPEL), A., i, 662.  
 nitroso- (STOERMER and VON LEPEL), A., i, 662.
- Methylpropylaminoacetone (STOERMER and POGGE), A., i, 408.
- Methylpropylaniline, nitroso-, hydrochloride of, action of soda on (STOERMER and VON LEPEL), A., i, 663.
- Methylpropylbenzaldehyde (BOUVEAULT), A., i, 649.  
 hydrazone (BOUVEAULT), A., i, 649.
- Methylpropylbenzenes. See Cymenes.
- p*-Methylisopropylbenzoylpropionic acid (MÜHR), A., i, 232.
- Methylisopropylcyclobutanedicarboxylic acid (BENTLEY, HAWORTH, and PERKIN), T., 161.  
 ethylic salt, T., 162.
- Methylisopropylbutanetricarboxylic acid, ethylic salt (BENTLEY, HAWORTH, and PERKIN), T., 162.
- Methylpropylcarbamide (STOERMER and VON LEPEL), A., i, 663.

- Methylpropyldinitromethane. See Pentane,  $\beta\beta$ -dinitro-.
- Methylisopropyldinitromethane. See *iso*-Pentane,  $\beta\beta$ -dinitro-.
- Methylisopropylethanetricarboxylic acid, ethylic salt, hydrolysis of (BENTLEY, PERKIN, and THORPE), T., 274; P., 1896, 64.
- 1 : 3-Methylisopropylcyclohexadiene (KNOEVENAGEL), A., i, 288.
- 5-chloro- (GUNDLICH and KNOEVENAGEL), A., i, 212.
- 1 : 4-Methylisopropylcyclohexadiene (*dihydrocymene*), chloro- (JUNGER and KLAGES), A., i, 245.
- 1 : 4-Methylpropylcyclohexane (*hexahydrocymene*), dichloro-, from menthone (JÜNGER and KLAGES), A., i, 244.
- 1-Methyl-3-isopropylcyclohexanone, action of phosphorus pentachloride on (GUNDLICH and KNOEVENAGEL), A., i, 212.
- 1 : 4-Methylpropylcyclohexene (*tetrahydrocymene*), chloro- (JÜNGER and KLAGES), A., i, 245.
- 1 : 3-Methylisopropylcyclohexenol-5 and its acetyl derivative, methyl ether chloride and bromide (KNOEVENAGEL), A., i, 287.
- 3 : 5-Methylisopropyl- $\Delta_2$ -cyclohexenone (*methylisopropylketotetrahydrobenzene*) (KNOEVENAGEL), A., i, 210.
- 3 : 5-Methylisopropylcyclohexenone-4-carboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 120.
- 3 : 5-Methyl-5-isopropyl- $\Delta_2$ -cyclohexenone-6-carboxylic acid (KNOEVENAGEL), A., i, 210.
- ethylic salt of (KNOEVENAGEL), A., i, 120.
- cis*-Methylisopropylsuccinic acid, silver salt, anil and anilic acid of (BENTLEY, PERKIN, and THORPE), T., 279, 282; P., 1896, 64.
- trans*-Methylisopropylsuccinic acid and its silver salt, anil and anilic acid (BENTLEY, PERKIN, and THORPE), T., 278, 283; P., 1896, 65.
- Methylisopropylsuccinic anhydride, *cis*- and *trans*-forms of (BENTLEY, PERKIN, and THORPE), T., 278; P., 1896, 65.
- Methylisopropyltetramethylenedicarboxylic acid. See Methylisopropylcyclobutanedicarboxylic acid.
- Methylprotocotoin, crystallography of (NEGRI), A., i, 655.
- Methylpurin,  $\beta$ -trichloro- (FISCHER), A., i, 13.
- Methylpurpuroxanthin from *m*-dihydroxybenzoic and *o*-toluic acids, diacetyl derivative of (SCHUNCK and MARCHLEWSKI), T., 70; P., 1895, 202.
- Methylpurpuroxanthins from *m*-dihydroxybenzoic and *m*-toluic acids (SCHUNCK and MARCHLEWSKI), T., 69; P., 1895, 202.
- 3-Methylpyrazoloneisobutyric acid (GIELE and HEUSER), A., i, 341.
- 3-Methylpyrazolonepropionic acid (TRAUBE and LONGINESCU), A., i, 310.
- 3-Methylpyridine-2-carboxylic acid. See  $\beta$ -Methylpicolinic acid.
- Methylpyrrolidine, relation of, to cuskhygrine (LIEBERMANN and CYBULSKI), A., i, 710.
- 1'-Methylquinoline, 4-nitro- (CLAUS and SETZER), A., i, 498.
- 2'-Methylquinoline (*quinaldine*) from condensation product of 1 : 3 : 4-xylidine and acetaldehyde (MILLER and PRÖCHL), A., i, 535.
- condensation of, with phthaldehydic acid (NENCKI), A., i, 256.
- 2' : 4'-Methylquinolinecarboxylic acid (*aniluvitic acid*) (SIMON), A., i, 86.
- Methylsalicylaldehyde. See *o*-Methoxybenzaldehyde.
- Methylsalicylanilide. See *o*-Methoxybenzanilide.
- Methylsalicylic acid. See *o*-Methoxybenzoic acid.
- Methylsalicylic alcohol. See *o*-Methoxybenzyl alcohol.
- Methylsaligenylcamphor (MINGUIN), A., i, 694.
- d*-Methylsantonous acid and its ethylic salt (ANDREOCCI), A., i, 183.
- l*-Methylsantonous acid (ANDREOCCI), A., i, 184.
- Methylsantonous acid, racemic, and its methylic and ethylic salts (ANDREOCCI), A., i, 184.
- Methylscopoline (LUBOLDT), A., i, 515.
- Methylscopolinemethylammonium iodide and its salts (LUBOLDT), A., i, 515.
- Methylsuccinimide. See Pyrotartarimide.
- p*-Methylsulphonel fluorescein : its tetrachloro- and dibromo- derivatives (JONES), A., i, 50.
- Methyltaurocarbamic acid,  $\beta$ -chlorobromo- (GADAMER), A., i, 415.
- Methylterephthalic acid, methylic salt of (BENTLEY and PERKIN), P., 1896, 79.
- $\beta$ -Methyltetramethylene dibromide, condensation of, with ethylic sodiummalonate (EULER), A., i, 145.

- $\beta$ -Methyltetramethylenediamine** and its dihydrochloride (EULER), A., i, 145.
- $\beta$ -Methyltetramethyleneglycol** (EULER), A., i, 145.
- d*-Methyltetronic acid.** See Tetric acid.
- Methyltetrose** (FISCHER), A., i, 526.
- 'acetamide compound of** (FISCHER), A., i, 526.
- action of nitric acid on** (FISCHER), A., i, 525, 526.
- $\mu$ -Methylthiazole,  $\beta$ -amino-, hydrochloride of** (WEIDEL and NIEMILOWICZ), A., i, 106.
- $\mu$ -Methylthiazole- $\alpha$ -carboxylamide,  $\beta$ -amino-** (WEIDEL and NIEMILOWICZ), A., i, 106.
- $\mu$ -Methylthiazole- $\alpha$ -carboxylic acid,  $\beta$ -amino-** (WEIDEL and NIEMILOWICZ), A., i, 106.
- Methylthiazolecarboxylic acid,  $\mu$ -amino-, ethylic salt** (CONRAD and SCHMIDT), A., i, 409.
- Methylthienyltriphenylmethane** (WRISSSE), A., i, 565.
- Methylthiocarbimide, action of brom-ethylamine on** (DIXON), T., 23.
- Methylthiouramil** (FISCHER), A., i, 141.
- action of mineral acids on** (FISCHER), A., i, 142.
- methyl derivative** (FISCHER), A., i, 142.
- $\beta$ -Methylthio- $\psi$ -uric acid** (FISCHER), A., i, 142.
- Methyl-*p*-toluidine, *o*-nitro-, and its acetyl derivative** (PINNOW), A., i, 161.
- Methyltridecylacetylene.** See under Hexadecylinene.
- Methyltriethylammonium chloride and hydroxide, action of heat on** (HOFMANN LECTURE), T., 670.
- Methyltriethylphosphonium chloride, chloro-** (HOFMANN LECTURE), T., 680.
- hydroxide** (HOFMANN LECTURE), T., 680.
- preparation of** (HOFMANN LECTURE), T., 675.
- iodide, discovery of** (HOFMANN LECTURE), T., 602.
- Methyltriphenodioxazine** (KEHRMANN and BÜRGIN), A., i, 707.
- i*-Methyltropinic acid and its methiodide and other derivatives** (WILLSTÄTTER), A., i, 265.
- d*-Methyltropinic acid: its methiodide and other derivatives** (WILLSTÄTTER), A., i, 265, 267.
- propylic salt** (WILLSTÄTTER), A., i, 267.
- n*-Methyltroponine: its salts and methiodide** (CIAMICIAN and SILBER), A., i, 397.
- n*-Methyltroponinoxime** (CIAMICIAN and SILBER), A., i, 397.
- $\gamma$ -Methyluric acid** (FISCHER), A., i, 14.
- Methylisovaleric acid.** See Hexoic acid: Trimethylpropionic acid.
- tri*-Methylvanillin,  $\alpha$ -trithio-** (WÖRNER), A., i, 226.
- $\beta$ -trithio-** (WÖRNER), A., i, 226.
- Methylxanthine, formation and action of, in the body** (ALBANESE), A., ii, 319.
- Meyer, Lothar, memorial lecture** (BEDSON), T., 1403; P., 1896, 119.
- Mezcaline, properties of** (HEFFTER), A., i, 267.
- Mica.** See Biotite, Muscovite, &c.
- Micas, lithia, constitution of** (CLARKE), A., ii, 37.
- Mica-syenite from Saxony** (HENDERSON), A., ii, 533.
- Microbes, aerobic, effect of different organic compounds in nutrition of** (LOEW), A., ii, 55.
- source of carbon for nitrifying** (GODLEWSKI), A., ii, 669.
- Microcline** (FOUQUÉ), A., ii, 533.
- from Greenland** (USSING), A., ii, 372.
- from Maryland** (HILLEBRAND), A., ii, 40.
- Microcline-micropertite from Greenland** (USSING), A., ii, 372.
- Microlite from Maine** (FOOTE), A., ii, 660.
- Micro-organisms, fermentation of uric acid by** (GÉRARD), A., ii, 668.
- Microscope, polarising, for butter analysis** (BESANA), A., ii, 129.
- Mitosis, chemistry of** (HEINE), A., ii, 489.
- Milk, composition of, in different animals** (PIZZI), A., ii, 120.
- composition of fats from, in different animals** (SOLBERG), A., ii, 378.
- freezing point of, as a test of purity** (WINTER), A., ii, 149.
- curdling of** (EDMUNDS), A., ii, 489.
- effect of borax on the curdling of** (ALLEN), A., ii, 489.
- action of sodium, potassium, ammonium, and calcium salts on the curdling of** (RINGEER), A., ii, 49.
- action of pancreatic juice on** (HALLIBURTON and BRODIE), A., ii, 662.
- sterilisation of** (CAZENEUVE), A., ii, 120.
- Milk, cows', composition of** (RÖHMANN), A., i, 515.
- Milk, human, analyses of** (SÖLDNER and CAMERER), A., ii, 378.

- Milk, condensed, composition of (PEARMAIN and MOOR), A., ii, 343.  
analysis of (PEARMAIN and MOOR), A., ii, 343.
- Milk, pasteurised, estimation of fat in, by creamometers (CAZENEUVE and HADDON), A., ii, 130.
- Milk, estimation of added water in, by taking the freezing point (HAMBURGER), A., ii, 550.  
estimation of albumin in (VAN SLYKE), A., ii, 132.  
estimation of boric acid in, volumetrically (JØRGENSEN), A., ii, 449.  
estimation of chlorides in (DENIGÈS), A., ii, 386  
estimation of fat in (WELLER; LONGI), A., ii, 228.  
estimation of lactose in (RAUMER and SPAETH), A., ii, 394; (WILEY and EWELL), A., ii, 628.
- Milk production, effects on, of feeding with whale and herring meal (SEBEBLIEN), A., ii, 197.
- Milk-serum, specific gravity of (RAUMER and SPAETH), A., ii, 394.
- Milk-sugar. See Lactose.
- Mineral oil (*paraffin*), detection of, in olive oil (CARPENNIER), A., ii, 452.  
(*petroleum*), American, composition and properties of (WANKLYN and COOPER), A., i, 1.
- Ohio and Canadian sulphur, composition and properties of (MABERY), A., i, 269, 270.
- Berea grit, analyses of (MABERY and DUNN), A., i, 329.
- Russian, composition and properties of (WANKLYN and COOPER), A., i, 1, 2.
- estimation of (KISSLING), A., ii, 452.  
separation, &c., of (HENRIQUES), A., ii, 77.  
separation of light, from benzene (HENRIQUES), A., ii, 77.  
detection of vegetable or animal oil in (HALPHEN), A., ii, 399.  
analyses of (ENGLER and JEZIORANSKI), A., i, 1.  
estimation of rosin oil in (KLIMONT), A., ii, 224.
- Mineral water. See Water.
- Minerals, classification of, according to the periodic system (SCHULZE), A., ii, 566.  
crystalline form of chemically simple (RINNE), A., ii, 29.  
"dilute coloration" of (WEINSCHEK), A., ii, 654.  
of high specific gravity, separation of (PENFIELD), A., ii, 216.
- Minerals, apparatus for separation of (LASPEYRES and KAISER), A., ii, 660.
- Minerals, ores, &c., from Austria, analyses of (JOHN and EICHLER), A., ii, 252.
- Minervite from Dépt. Hérault (CARNOT), A., ii, 529.
- Modern theories of chemistry, the L. Meyer (BEDSON), T., 1427; P., 1896, 119.
- Moldavite from Bohemia (HANAMANN), A., ii, 434.
- Molecular volume. See Volume, molecular.
- Molecular weight or weights of optically active and inactive isomerides (TRAUBE), A., i, 526.  
determination of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 236.  
determination of, of inorganic compounds (BILTZ), A., ii, 412.  
ebullioscopic method for determination of (BECKMANN and SCHLIEBS), A., i, 124.  
determination of, by the diminution of solubility method (TOLLOCZKO), A., ii, 637.  
determination of, by means of molecular solution volumes (TRAUBE), A., ii, 153, 411.  
of hydrocarbons, determination of, by means of molecular volume (TRAUBE), A., ii, 153.  
of solid potassium dihydrogen arsenate (FOCK), A., ii, 160.  
of solid potassium perchlorate (FOCK), A., ii, 160.  
of solid potassium permanganate (FOCK), A., ii, 160.  
of solid rubidium permanganate (FOCK), A., ii, 160.  
of solid potassium dihydrogen phosphate (FOCK), A., ii, 160.  
See also Density, vapour; Heat, boiling point, elevation of; Heat, freezing point, depression of.
- Molybdenite from New South Wales (LIVERSIDGE), A., ii, 658.
- Molybdenum, preparation of pure (VANDENBERGHE), A., ii, 427.  
preparation of, from molybdenite (GUICHARD), A., ii, 563.  
action of carbonic anhydride on (VANDENBERGHE), A., ii, 428.  
action of hydrogen on (VANDENBERGHE), A., ii, 428.  
action of nitrogen on (VANDENBERGHE), A., ii, 428.  
action of nitrogen, carbonic anhydride, carbonic oxide, hydrogen sulphide, and nitric oxide on (FÉRÉ), A., ii, 476.

- Molybdenum**, action of sulphurous anhydride on (FÉRÉE), A., ii, 476.
- Molybdenum** alloys with aluminium (MOISSAN), A., ii, 602.
- with iron (BENNEVILLE), A., ii, 174.
- Molybdenum** amalgams (FÉRÉE), A., ii, 476.
- Molybdenum** dihydroxychloride, molecular weight of (VANDENBERGHE), A., ii, 27.
- oxyfluoride (PICCINI), A., ii, 178.
- oxyfluorides, compounds of, with thalious fluoride (MAURO), A., ii, 248.
- potassium oxyfluorides (MARCHETTI), A., ii, 20.
- Molybdic acid**, salts of, with rare earths (HITCHCOCK), A., ii, 526.
- as a microchemical reagent (HEINE), A., ii, 536.
- Bronzes** (STAVENHAGEN and ENGELS), A., ii, 28.
- Iodomolybdic acid** and its salts (CHRÉTIEN), A., ii, 651.
- Ammonium phosphomolybdate**, composition of (BLAIR and WHITFIELD), A., ii, 503.
- Perthiomolybdic acid** (HOFMANN), A., ii, 476.
- Molybdenum sulphides and oxides**, compounds of ammonia and potassium cyanide with (VON DER HEIDE and HOFMANN), A., ii, 605.
- molybditartaric acid**, sodium salt of (HENDERSON and BARR), T., 1455; P., 1896, 169.
- Monazite** from North Carolina (THORPE), A., ii, 34.
- gases from (TILDEN), A., ii, 655.
- Monazite sands**, rare earths in (SCHÜTZENBERGER and BOUDOUARD), A., ii, 475.
- Monilia candida**, enzyme from (FISCHER and LINDNER), A., i, 195.
- Monomolecular reactions**. See Reactions.
- Monotropia hypopithys**, the glucoside of, and the ferment which hydrolyses it (BOURQUELOT), A., ii, 540.
- Monticellite** from Arkansas (PENFIELD and FORBES), A., ii, 373.
- Morin**, the colouring matter of *Maclura tinctoria*, properties of (PERKIN and BABLICH), T., 792; P., 1896, 106.
- constitution of, in relation to quercetin, chrysin, and gentisein (PERKIN and BABLICH), T., 798; P., 1896, 106.
- action of fused alkali on (PERKIN and BABLICH), T., 793; P., 1896, 106.
- Morin hydriodide**, analysis of (PERKIN), T., 1442; P., 1896, 167.
- dimethyl ether, preparation and properties of (PERKIN and BABLICH), T., 798; P., 1896, 106.
- tetramethyl ether, preparation, and acetyl derivative of (PERKIN and BABLICH), T., 796; P., 1896, 106.
- decomposition of, with alcoholic potash (PERKIN and BABLICH), T., 797; P., 1896, 106.
- Morin**, *tetrabromo-*, preparation of, and the pentacetyl derivative of (PERKIN and BABLICH), T., 794; P., 1896, 106.
- non-formation of acid compounds of (PERKIN), T., 1443; P., 1896, 167.
- Morphine**, constitution of (VONGERICHTEN), A., i, 264.
- and morphine hydrochloride, water of crystallisation of (GÖHLICH), A., i, 191.
- effect of, on the germination of seeds (MOSSO), A., ii, 326.
- detection of (BRUYLANTS), A., ii, 132; (KIPPENBERGER), A., ii, 681.
- detection of, by diazo-solutions (HEWLETT), A., ii, 284.
- estimation of, in opium (DOTT), A., ii, 283; (KEBLER), A., ii, 403.
- titration of, by iodine (KIPPENBERGER), A., ii, 632.
- Moulds**, assimilation of nitrogen by (PURIEWITSCH), A., ii, 571.
- Mucic acid** from phrenosin (THUDICHUM), A., i, 400.
- velocity of lactone formation of (HJELT), A., i, 597.
- action of formaldehyde and hydrochloric acid on (HENNEBERG and TOLLENS), A., i, 645.
- Mucilage of capsicum seed** (VON BITTÓ), A., ii, 209.
- Mucilages**, composition of some (YOSHIMURA), A., ii, 60.
- Mucin** (CHITTENDEN and GIES), A., i, 456.
- Mucor mucedo**, cholesterol from (GÉRARD), A., i, 21.
- Musa paradisica*, constituents of sap of (HÉBERT), A., ii, 494.
- Muscale buttons**, composition of (HEFFTER), A., i, 267.
- Muscovite** from Bavaria (SCHWAGER and GÜMBEL), A., ii, 432.
- from Servia (STANOJEVIĆ), A., ii, 255.
- chromiferous, from Ontario (HOFFMANN), A., ii, 191.

Muscovite, action of caustic soda on (FRIEDEL), A., ii, 482.

See also Sericite; Damourite.

Muscle, mineral constituents of (KATZ), A., ii, 377.

source of carbonic anhydride of (KRÜGER), A., ii, 487.

actions of chemically related substances on (BLUMENTHAL), A., ii, 377.

function of glycogen in (SEEGEN), A., ii, 487.

proteids of (VON FÜRTH), A., ii, 48.

presence of urea in (SCHÖNDORFF), A., ii, 318.

estimation of glycogen in (KISTIAKOFFSKY), A., ii, 80.

Muscular energy, sugar as a source of (STOKVIS, MOSSO, and HARLEY), A., ii, 44.

Muscular work, sources of energy of (SCHENCK), A., ii, 48.

influence of, on proteid metabolism (KRUMWACHER), A., ii, 377.

excretion of creatinine during (ACKERMANN), A., ii, 121.

Mustard, action of, on digestion (GOTTLIEB), A., ii, 42.

Mustard. See also Agricultural chemistry (Appendix).

Mustard oil, estimation of (FOERSTER), A., ii, 452.

Mustard oils. See under the respective thiocarbimides.

Musts, fermentation of (RIETSCH and HEISELIN), A., ii, 53.

*Mytilus lapidescens*, analysis of (WINTERSTEIN), A., ii, 63.

Myogen. See Myosinogen.

Myoproteid in fishes' muscle (VON FÜRTH), A., ii, 48.

Myosin, formation of, in muscle plasma (VON FÜRTH), A., ii, 48.

Myosinogen of muscle plasma (VON FÜRTH), A., ii, 48.

para-Myosinogen (VON FÜRTH), A., ii, 49.

*Myrica nagi*, yellow colouring matter of (PERKIN and HUMMEL), T., 1287; P., 1896, 145.

dyeing properties of, and tannin in (PERKIN and HUMMEL), T., 1294; P., 1896, 145.

Myricetin, the yellow colouring matter of *Myrica nagi* (PERKIN and HUMMEL), T., 1287; P., 1896, 145.

identity of the colouring matter of sumach with (PERKIN and ALLEN), T., 1302; P., 1896, 157.

preparation, and chemical and dyeing properties of (PERKIN and HUMMEL), T., 1287; P., 1896, 145.

Myricetin, constitution of, and its relation to quercetin (PERKIN and HUMMEL), T., 1293; P., 1896, 145.

action of fused alkalis on (PERKIN and HUMMEL), T., 1292; P., 1896, 145.

acetyl and benzoyl derivative of (PERKIN and HUMMEL), T., 1291; P., 1896, 145.

Myricetin, tetrabromo-, preparation and properties of (PERKIN and HUMMEL), T., 1293; P., 1896, 145.

Myristic acid from wool fat (DARMSTÄDTER and LIFSCHUTZ), A., i, 346.

behaviour of alkali salts of, with water (KRAFFT and WIGLOW), A., i, 80.

Myrosin, solubility of, in alcohol (DASTRE), A., i, 398.

Myxœdema, action of thyriodin in (ROOS), A., ii, 488.

## N.

Nantokite from Broken Hill, N.S.W. (LIVERSIDGE), A., ii, 31.

Naphthafluorescein (FRIEDLÄNDER and RÜLT), A., i, 569.

Naphthalene, discovery of (HOFMANN LECTURE), T., 597.

fluorescence of gaseous (WIEDEMANN and SCHMIDT), A., ii, 86.

magnetic rotatory power, &c., of (PERKIN), T., 1064, 1088, 1089, 1195, 1242.

heat of solution of, in methylic, ethylic, and propylic alcohols, chloroform, and toluene (SPEYERS), A., ii, 411.

cryoscopic behaviour of phenols dissolved in (AUWERS), A., ii, 156.

freezing points of solutions of derivatives of phenol in (AUWERS and INNES), A., ii, 293.

influence of pressure on the freezing point of a benzene solution of (COLSON), A., ii, 157.

Naphthalene, bromo- $\beta$ -iodo- (m. p. 55°) (HIRTZ), A., i, 532.

1 : 2-bromiodo- (HIRTZ), A., i, 532.

1 : 4-bromiodo- (HIRTZ), A., i, 532.

1 : 2-dichloro-, from 2 : 1-chloro-

naphthalenesulphonamide (ARMSTRONG and WYNNE), P., 1895, 238.

1 : 3-dichloro- (ARMSTRONG and WYNNE), P., 1895, 240.

1 : 2'-dichloro- (ARMSTRONG and WYNNE), P., 1895, 241.

1 : 3 : 4'-trichloro- (ARMSTRONG and WYNNE), P., 1895, 241.

- Naphthalene, 1 : 2 : 1 : 4'-*tetrachloro*-, preparation of (BRUYN and VAN LEENT), A., i, 605.  
*pentachloro*-, preparation of (BRUYN and VAN LEENT), A., i, 605.  
 1 : 4'-*dicyano*- (MORO), A., i, 567.  
 *$\beta$ -iodoxy*-, preparation of (WILLGERODT), A., i, 533.  
 *$\alpha$ -nitro*-, magnetic rotatory power, &c., of (PERKIN), T., 1096, 1181, 1239.  
*dinitro*-, reduction of (HOFMANN LECTURE), T., 647.  
 1 : 4'-*dinitro*- (GASSMANN), A., i, 566.  
 1 : 1'-*dinitro*- (GASSMANN), A., i, 486, 566.  
*tetranitro*-derivatives of, action of hydrochloric acid on (BRUYN and VAN LEENT), A., i, 604, 605.  
 1 : 2 : 3-Naphthaleneazohydroxynaphthoic acid (MÖHLAU and KRIEBEL), A., i, 242.  
 1 : 4'-Naphthalenedicarboxylic acid, ammonium, calcium, silver, methylic, ethylic, phenylic salts and chloride (MORO), A., i, 567.  
*dinitro*-, ammonium, calcium, methylic, ethylic salts (MORO), A., i, 568.  
*trinitro*-, barium, ethylic salts (MORO), A., i, 568.  
 1 : 2'-Naphthalenedisulphonic acid, chloride (ARMSTRONG and WYNNE), P., 1895, 240.  
 3 : 1'-Naphthalenedisulphonic acid, 1 : 3'-*dichloro*- (FRIEDLÄNDER and KIELBASINSKI), A., i, 693.  
 3 : 4'-Naphthalenedisulphonic acid, 1-chloro-, and its chloride (ARMSTRONG and WYNNE), P., 1895, 241.  
 Naphthalene-red. See Azotrinaphthyl-diamine.  
 1-Naphthalenesulphonic acid, nitration of the potassium salt (ARMSTRONG and WYNNE), P., 1895, 239.  
 2-chloro-, barium, potassium, sodium salts, chloride, amide (ARMSTRONG and WYNNE), P., 1895, 238.  
 3-Naphthalenesulphonic acid, 1-chloro- (ARMSTRONG and WYNNE), P., 1895, 240.  
 sulphonation of potassium salt (ARMSTRONG and WYNNE), P., 1895, 241.  
 Naphthalidine. See Naphthylamine.  
 *$\beta$ -Naphthalidosymnaphthazine* (FISCHER and ALBERT), A., i, 701.  
 *$\alpha$ -Naphthalidopyrotartaric acid*, sodium salt (BOETTINGER), A., i, 443.  
 *$\alpha$ -Naphthalidopyruvic acid*, oxidation of (GASSMANN), A., i, 488.  
 *$\beta$ -Naphthalidopyruvic acid*, calcium, barium salts (GASSMANN), A., i, 487.  
 *$\alpha$ -Naphthalidosuccinic acid*, potassium salt (BOETTINGER), A., i, 443.  
 *$\beta$ -Naphthalidosuccinic acid*, sodium, calcium, barium salts (GASSMANN), A., i, 487.  
 *$\beta$ -Naphthaquinone*, condensation of, with  *$\beta\beta$ -naphthylenediamine* (FISCHER and ALBERT), A., i, 701.  
 1 : 2 : 3-Naphthaquinonecarboxylic acid, methylic salt (MÖHLAU and KRIEBEL), A., i, 243.  
 1 : 2 : 3'-Naphthaquinonecarboxylic acid, 3 : 1'-*dibromo*- (ZINCKE), A., i, 308.  
 *$\beta$ -Naphthaquinoneoxime*, effect of, on the freezing point of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 475.  
 4 : 1-Naphthaquinoneoxime, 2-amino- (KEHRMANN and HERTZ), A., i, 567.  
 1 : 2-Naphthaquinone-4-sulphonic acid, condensation of, with phenyl-*o*-phenylenediamine (KEHRMANN and LOCHER), A., i, 700.  
 Naphtharesorcinol. See 1 : 3-Dihydroxynaphthalene.  
 Naphthasafranols,  *$\alpha$ -* and  *$\beta$ -* (JAUBERT), A., i, 325.  
 Naphthazarin, fluorescence of gaseous (WIEDEMANN and SCHMIDT), A., ii, 86.  
 Naphthazarin. See also Dihydroxy- *$\beta$ -naphthaquinone*.  
 *$\alpha\beta\beta\beta$ -Naphthazine* (FISCHER and ALBERT), A., i, 701.  
*sym-Naphthazine*,  *$\alpha$ -amino*- (FISCHER and ALBERT), A., i, 701.  
 Naphthencarboxylic acid, ethereal salt of (FUCHS and SCHIFF), A., i, 351.  
 *$\alpha\beta$ -Naphthobenzaldehydine* (HINSBERG and KOLLER), A., i, 537.  
 *$\alpha$ -Naphthoic acid*, magnetic rotatory power, &c., of the ethylic salt of (PERKIN), T., 1137, 1161, 1179, 1234, 1238.  
 *$\beta$ -Naphthoic acid*, magnetic rotatory power, &c., of the ethylic salt of (PERKIN), T., 1137, 1161, 1179, 1232, 1238.  
 3-Naphthoic acid, 2-amino-, constitution of (MÖHLAU), A., i, 243.  
 methylic salt and acetyl derivative of (MÖHLAU), A., i, 243.  
 Naphthoic aldehyde (ROUSSER), A., i, 652.  
 *$\alpha$ -Naphthol*, compound of, with aluminium chloride (PERRIER), A., i, 354.  
 condensation of, with piperidine (ABEL), A., i, 254.  
 *$\alpha$ -Naphthol*, 2-amino- (PLANCHER), A., i, 359.



- $\alpha$ -Naphthol**, 3-amino-, from 1:3-dihydroxynaphthalene (FRIEDLÄNDER and RÜDT), A., i, 569.
- 4-amino- (PLANCHER), A., i, 359.
- 2'-amino-, acetyl derivative (FRIEDLÄNDER and ZINBERG), A., i, 244.
- 4-bromo-; its picrate and acetyl derivative (REVERDIN and KAUFFMANN), A., i, 175.
- 4-chloro-; its picrate and acetyl derivative (REVERDIN and KAUFFMANN), A., i, 175.
- dinitro-, discovery of (HOFMANN LECTURE), T., 621.
- $\beta$ -Naphthol**, compound of, with aluminium chloride (PERRIER), A., i, 354.
- behaviour of, towards iodoform (SCHUYTEN), A., i, 442.
- condensation of, with piperidine (ABEL), A., i, 254.
- $\beta$ -Naphthol**, 1-amino- (PLANCHER), A., i, 359.
- 1'-amino-, acetyl derivative of (FRIEDLÄNDER and ZINBERG), A., i, 244.
- 1:4-diamino-, dihydrochloride, diacetyl derivative (KEHRMANN and HERTZ), A., i, 566.
- Naphthols, effect of, on the freezing point of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 474.
- behaviour of, with nascent bromine (VAUBEL), A., ii, 507.
- ethereal salts of, extraction and detection of (DRAGENDORFF), A., ii, 278.
- Naphtholsulphonic acids. See Hydroxynaphthalenesulphonic acids.
- $\beta$ -Naphtho- $\alpha$ -methylcinchonic acid** (WEGSCHEIDER), A., i, 480.
- Naphthonitrile, preparation of (HOFMANN LECTURE), T., 705.
- $\alpha$ - and  $\beta$ -Naphthonitriles, magnetic rotatory powers, &c., of (PERKIN), T., 1097, 1137, 1206, 1244.
- Naphthothioamide, preparation of (HOFMANN LECTURE), T., 705.
- $\alpha$ -Naphthoylbenzoic acid, oxime anhydride, amide (GRAEBE), A., i, 443.
- $\alpha$ -Naphthyl ethyl oxide, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1134, 1160, 1189, 1231, 1241.
- $\beta$ -Naphthyl ethyl oxide, magnetic rotatory power, &c., of (PERKIN), T., 1134, 1160, 1190, 1231, 1241.
- Naphthyl isocyanate, preparation of (HOFMANN LECTURE), T., 715.
- $\alpha$ -Naphthyl mercaptan (*thio- $\alpha$ -naphthol*) (VOSWINKEL), A., i, 378.
- $\beta$ -Naphthyl-*o*-acetamidobenzylacetamide (BUSCH and BRAND), A., i, 161.
- $\alpha$ -Naphthylallylsulphone (TROEGER and ARTMANN), A., i, 570.
- $\beta$ -Naphthylallylsulphone**, dibromide, glycol anhydride (TROEGER and ARTMANN), A., i, 569.
- $\alpha$ -Naphthylamine**, composition of (HOFMANN LECTURE), T., 603; P., 1893, 138.
- magnetic rotatory power, &c., of (PERKIN), T., 1064, 1107, 1134, 1155, 1160, 1211, 1245.
- action of cyanogen chloride on (HOFMANN LECTURE), T., 601.
- amido-sulphonate (PAAL and JÄNICKE), A., i, 235.
- $\beta$ -Naphthylamine**, magnetic rotatory power, &c., of (PERKIN), T., 1107, 1134, 1155, 1160, 1212, 1233, 1245.
- dichloracetate (GASSMANN), A., i, 488.
- hydrogen succinate, hydrogen tartrate, dihydrogen citrate (GASSMANN), A., i, 487.
- Naphthylamines, behaviour of, with nascent bromine (VAUBEL), A., ii, 507.
- 2:1:4'-Naphthylaminedisulphonic acid (ARMSTRONG and WYNNE), P., 1895, 238.
- 4':1:2'-Naphthylaminedisulphonic acid, hydrogen potassium salt (ARMSTRONG and WYNNE), P., 1895, 240.
- 1:3-Naphthylaminesulphonic acid ( *$\gamma$ -naphthylaminesulphonic acid*) (ARMSTRONG and WYNNE), P., 1895, 239.
- sulphonation of (ARMSTRONG and WYNNE), P., 1895, 240.
- 2:1-Naphthylaminesulphonic acid, sodium salt (ARMSTRONG and WYNNE), P., 1895, 238.
- $\beta$ -Naphthylaminobenzylmethylimide**, picrate and crystalline form of (VON FECHMANN), A., i, 31.
- $\alpha$ -Naphthyl-*o*-aminobenzylamine and its salts (BUSCH and BRAND), A., i, 160.
- $\beta$ -Naphthyl-*o*-aminobenzylamine** (BUSCH and BRAND), A., i, 161.
- $\beta$ -Naphthyl-*o*-aminobenzylhydrazine** (BUSCH and BRAND), A., i, 161.
- $\mu\alpha$ -Naphthylaminopenthiiazoline,  $\gamma$ -bromo-, and its picrate (DIXON), T., 29; P., 1895, 217.
- $\mu\beta$ -Naphthylaminopenthiiazoline,  $\gamma$ -bromo- (DIXON), T., 28; P., 1895, 217.
- $\beta$ -Naphthylazocarboxylamide** (THIELE), A., i, 94.
- $\alpha$ -Naphthylbenzylidene-*o*-aminobenzylamine (BUSCH and BRAND), A., i, 160.
- $\beta$ -Naphthylbenzylidene-*o*-aminobenzylamine** (BUSCH and BRAND), A., i, 161.

- $\beta$ -Naphthylbromopropylsulphone** (TROEGER and ARTMANN), A, i, 569.
- ab- $\alpha$ -Naphthylcarboxyethylthiocarbamide** (DORAN), T., 328; P., 1896, 74.
- ab- $\beta$ -Naphthylcarboxyethylthiocarbamide** (DORAN), T., 329; P., 1896, 74.
- $\alpha$ -Naphthyldimethylamine**, magnetic rotatory power, &c, of (PERKIN), T., 1108, 1138, 1156, 1213, 1233, 1245.
- $\beta$ -Naphthyldimethylamine**, magnetic rotatory power, &c, of (PERKIN), T., 1108, 1138, 1156, 1212, 1234, 1245.
- $\alpha$ -Naphthyldipropylamine**, hydrochloride, hydriodide, and platinechloride (COHN), A., i, 100.
- 1: 2-Naphthylenediamine**, benzyldiene derivative of (HINSBERG and KOLLER), A., i, 537.
- 1: 3-Naphthylenediamine**, from 1: 3-dihydroxynaphthalene (FRIEDLÄNDER and RÜDT), A., i, 569.
- 1: 4-Naphthylenediamine**, preparation of (HOFMANN LECTURE), T., 647.
- 2: 3-Naphthylenediamine**, condensation of, with  $\beta$ -naphthaquinone (FISCHER and ALBERT), A., i, 701.
- 1: 2'-Naphthylenediamine**, from 1: 2': 2-dihydroxynaphthoic acid (FRIEDLÄNDER and ZINBERG), A., i, 244.
- 1: 3'-Naphthylenediamine-3: 1'-disulphonic acid** (FRIEDLÄNDER and KIELBASINSKI), A., i, 69.
- 1: 3'-Naphthylenediamine-4: 1'-disulphonic acid** (FRIEDLÄNDER and KIELBASINSKI), A., i, 693.
- 1: 2-Naphthylenediamine-4-sulphonic acid** (FRIEDLÄNDER and KIELBASINSKI), A., i, 693.
- 1: 3'-Naphthylenediamine-4-sulphonic acid** (FRIEDLÄNDER and KIELBASINSKI), A., i, 693.
- 1: 4'-Naphthylenediamine-2-sulphonic acid** (FRIEDLÄNDER and KIELBASINSKI), A., i, 693.
- $\alpha$ -Naphthylglyoxylic acid**, ethylic salt, oxime, nitrile, picrate (ROUSSET), A, i, 652.
- $\beta$ -Naphthylglyoxylic acid**, ethylic salt (ROUSSET), A., i, 652.
- $\alpha$ -Naphthylhydroxybenzylidene- $\alpha$ -aminobenzylamine** (BUSCH and BRAND), A., i, 160.
- $\beta$ -Naphthyl- $o$ -hydroxybenzylidene- $\alpha$ -aminobenzylamine** (BUSCH and BRAND), A., i, 161.
- $\beta$ -Naphthylhydroxypropylsulphone** (TROEGER and ARTMANN), A., i, 569.
- $\alpha$ -Naphthyllic carbonate, dichloride** (REVERDIN and KAUFFMANN), A., i, 175.
- 1-bromo-** (REVERDIN and KAUFFMANN), A., i, 176.
- 4-bromo-** (REVERDIN and KAUFFMANN), A., i, 175.
- 4-chloro-** (REVERDIN and KAUFFMANN), A., i, 175.
- 1-iodo-** (REVERDIN and KAUFFMANN), A., i, 176.
- 4-nitro-** (REVERDIN and KAUFFMANN), A., i, 175.
- mesitylic sulphide** (BOURGEAIS), A., i, 18.
- phosphate, sulphonic acid of** (REVERDIN and KAUFFMANN), A., i, 175.
- $m$ -xylylic sulphide** (BOURGEAIS), A., i, 18.
- $o$ -xylylic sulphide** (BOURGEAIS), A., i, 18.
- $p$ -xylylic sulphide** (BOURGEAIS), A., i, 18.
- $\beta$ -Naphthyllic compounds, detection of** (DRAGENDORFF), A., ii, 279.
- benzoylmethylic ether** (FRITZ), A., i, 152.
- benzoylmethylic ether, oxime** (FRITZ), A., i, 152.
- mesitylic sulphide** (BOURGEAIS), A., i, 18.
- $m$ -xylylic sulphide** (BOURGEAIS), A., i, 18.
- $o$ -xylylic sulphide** (BOURGEAIS), A., i, 18.
- $p$ -xylylic sulphide** (BOURGEAIS), A., i, 18.
- $\beta$ -Naphthylodopropylsulphone** (TROEGER and ARTMANN), A., i, 570.
- $\beta$ -Naphthylmethylaminobenzenylmethylimidine**, and its picrate (VON PECHMANN), A., i, 31.
- 3'- $\alpha$ -Naphthyl-1'-methylthiotetrahydroquinazoline**, and its hydriodide (BUSCH and BRAND), A., i, 161.
- 3'- $\beta$ -Naphthyl-1'-methylthiotetrahydroquinazoline**, and its hydriodide (BUSCH and BRAND), A., i, 161.
- $\beta$ -Naphthyl- $o$ -nitrobenzyl nitrosamine** (BUSCH and BRAND), A., i, 161.
- $\beta$ -Naphthyl- $o$ -nitrobenzylamine** and its hydrochloride (BUSCH and BRAND), A., i, 161.
- $\beta$ -Naphthylopianamide** (WEGSCHEIDER), A., i, 480.
- Naphthylphenylcarbazole**, picrate, and nitroso-, acetyl and benzoyl derivatives (SCHÖPFF), A., i, 244.
- Naphthylphenylcarbazolecarboxylic acid**, ethylic, sodium, barium, magnesium, and calcium salts, acetyl derivative (SCHÖPFF), A., i, 243.

- $\beta$ -Naphthylphenylpropylenedisulphone** (TROEGER and ARTMANN), A., i, 570.
- $\alpha$ -Naphthylphthalimide**, from the oxime anhydride of  $\alpha$ -naphthoylbenzoic acid (GRAEBE), A., i, 443.
- $\beta$ -Naphthyl-2-pipecoline** and its platinochloride, picrate, hydrochloride, and aurochloride (ROTH), A., i, 497.
- $\alpha$ -Naphthylpiperidine** and its hydrochloride, aurochloride, picrate, ferrocyanide, &c. (ABEL), A., i, 253.
- $\beta$ -Naphthylpiperidine** and its hydrochloride, sulphate, aurochloride, and picrate (ROTH), A., i, 497.
- $\alpha$ -Naphthylsulphamic acid** and its ammonium salt (PAAL and JÄNICKE), A., i, 235.
- 3'-Naphthylthiotetrahydroquinazoline** (BUSCH and BRAND), A., i, 160.
- 3'- $\beta$ -Naphthylthiotetrahydroquinazoline** (BUSCH and BRAND), A., i, 161.
- Narcotine**, physiological action of derivatives of (FALK), A., ii, 201.  
behaviour of, in the Stas-Otto process (OTTO), A., ii, 508  
detection of (FORMÁNEK), A., ii, 401.  
titration of, by iodine (KIPPENBERGER), A., ii, 682.
- iso-Narcotine**, formation of, and its salts (LIEBERMANN), A., i, 264.  
derivatives of (LIEBERMANN), A., i, 711.  
bromo-, preparation and properties of (LIEBERMANN), A., i, 711.  
nitro-, preparation and properties of (LIEBERMANN), A., i, 711.
- Natrolite** from Dresden (ZSCHAU), A., ii, 189.  
from Moravia (EICHLEITER), A., ii, 482.
- Nelumbium nuciferum***, asparagine in (KINOSHITA), A., ii, 61.
- Neodymium tungstate** and molybdate (HITCHCOCK), A., ii, 526.  
separation of thorium from (FRESSENIUS and HINTZ), A., ii, 677.
- Nepheline**, formula of (RAMMELSBERG), A., ii, 189.  
from "Tihet" (BAUER), A., ii, 310.
- Nepheline-leucite-tephrite** from Bohemia (HIBSCH), A., ii, 117.
- Nephelinite-syenite** of Greenland, minerals of (USSING), A., ii, 372.
- Nephelium lappaceum***, constituents of (BACZEWSKI), A., ii, 209.
- Nepodin** and its diacetyl derivative (HESSE), A., i, 574.
- Nepolin** and its diacetyl derivative (HESSE), A., i, 573.
- Nerve**, action of gases and vapours on (WALLER), A., ii, 52.
- Nerve-cells**, changes in, due to activity (EVE), A., ii, 663.
- Neurostearic acid** (THUDICHUM), A., i, 400.
- Nickel**, melting point of (HOLBORN and WIEN), A., ii, 87.  
possible octovalency of (CURTIUS), A., i, 338.
- Nickel-alloys** with aluminium (MOISSAN), A., ii, 602; (COMBES), A., ii, 604.  
with copper, melting points of (GAUTIER), A., ii, 646.  
with tin (GAUTIER), A., ii, 602.
- Nickel salts**, action of magnesium on solutions of (VITALI), A., ii, 420.  
boride (MOISSAN), A., ii, 424.  
carbonyl (CURTIUS), A., i, 338; (FREY), A., ii, 107.  
chloride, electrolytic dissociation of, at different temperatures (SALVADORI), A., ii, 512.  
hydrated, absorption of moisture by (HAKE), P., 1896, 34.  
hydroxide, electrochemical preparation of (LORENZ), A., ii, 647.  
niobate (LARSSON), A., ii, 564.  
phosphide (GRANGER), A., ii, 651.  
sesquiphosphide (GRANGER), A., ii, 602.
- cæsium sulphate**, density and optical behaviour of (TUTTON), T., 415.
- potassium sulphate**, density and optical behaviour of (TUTTON), T., 407.
- rubidium sulphate**, density and optical behaviour of (TUTTON), T., 411.
- silicide** (VIGOUROUX), A., ii, 176.
- sulphide**, electrochemical preparation of (LORENZ), A., ii, 648.  
compound of, with carbon bisulphide and ammonia (WIEDE and HOFMANN), A., ii, 363.
- thiopyrophosphate** (FERRAND), A., ii, 473.
- cyanide**, thermochemical data of (VARET), A., ii, 513.  
heat of formation of double salts containing (VARET), A., ii, 513.  
compounds of, with cyanides of the alkalis and alkaline earths (VARET), A., i, 633.
- Nickel**, detection of, microchemically (SCHRÖDER VAN DER KOLK), A., ii, 578.  
estimation of, electrolytically (NICHOLSON and AVERY), A., ii, 627.  
estimation of, in steel, &c. (BEEARLEY), A., ii, 676.  
separation of, qualitatively from iron,

- chromium, cobalt, manganese, aluminium, and zinc (HARE), A., ii, 127.
- Nickel, separation of, from copper (BREARLEY), A., ii, 676.
- separation electrolytically of, from gold and silver (SMITH and WALLACE), A., ii, 220.
- separation of zinc from (JANNASCH), A., ii, 546.
- Nickel-iron sulphide from Sudbury, Canada (HILLEBRAND), A., ii, 40.
- Nicotine and its salts, rotatory dispersion of (GENNARI), A., ii, 286.
- action of cyanogen on (HOFMANN LECTURE), T., 650.
- effect of, on the germination of seeds (MOSSO), A., ii, 326.
- estimation of, in tobacco (KISSLING), A., ii, 401; (VEDRÖDI), A., ii, 630.
- Niobite. See Columbite.
- Niobium containing carbon (LARSSON), A., ii, 564.
- Niobium oxychloride and pentachloride (DELAFONTAINE and LINEBARGER), A., ii, 653.
- oxyfluoride (PICCINI), A., ii, 178.
- potassium oxyfluoride (MARCHETTI), A., ii, 20.
- Niobic acid, crystallised salts of (LARSSON), A., ii, 564.
- Niobium, reaction for (PENNINGTON), A., ii, 305.
- separation of tantalum from (PENNINGTON), A., ii, 305.
- Nipecotinic acid (BESTHORN), A., i, 252.
- Nitrates. See Nitric acid under Nitrogen, also under Agricultural chemistry (Appendix).
- iso*-Nitramic acids, reduction of (TRAUBE and LONGINESCU), A., i, 340.
- Nitramide, mercury derivative of (THIELE and LACHMANN), A., i, 208.
- Nitramineacetic acid (HANTZSCH and METCALF), A., i, 521.
- action of heat on (HANTZSCH and METCALF), A., i, 521.
- ethylic salt (HANTZSCH and METCALF), A., i, 521.
- iso*-Nitramineacetic acid, sodium salt, reduction of (TRAUBE), A., i, 337.
- iso*-Nitraminepropionic acid, reduction of (TRAUBE and LONGINESCU), A., i, 340.
- Nitramines, action of fused potash on (VAN ERP), A., i, 275, 276.
- iso*-Nitraminic acids, action of dilute hydrochloric acid on (TRAUBE), A., i, 9.
- Nitric acid.
- Nitric oxide. } See under Nitrogen.
- Nitric peroxide. }
- Nitrification. See under Agricultural chemistry (Appendix).
- Nitriles, action of sulphuric acid on (HOFMANN LECTURE), T., 696.
- aromatic, action of sodium on (LOTTERMOSER), A., i, 298.
- conversion of, into amides by hydrogen peroxide (DEINERT), A., i, 149.
- Nitriles. See also :—
- Acetamidobenzonitrile.
- Benzamidobenzonitrile.
- Benzonitrile.
- aa*-Dimethyllevulinic acid nitrile.
- Ethyltoluonitrile.
- Hydroxymethylenebenzylic cyanide, carbanilido-derivative of.
- Malononitrile.
- Mandelonitrile.
- $\alpha$ -Naphthonitrile and  $\beta$ -Naphthonitrile.
- $\alpha$ -Phenoxybutyronitrile.
- Phthalonitrile.
- Piperonylonitrile.
- Pulegonitrile.
- Pyrotartaric nitrile.
- o*- and *p*-Tolunitriles.
- Veratronitrile.
- Xylidionitrile.
- iso*-Nitriles, preparation of (HOFMANN LECTURE), T., 706.
- Nitrites. See Nitrous acid, under Nitrogen.
- Nitro-compounds, nature of (HOFMANN LECTURE), T., 646.
- theory of the reduction of (MELDOLA), T., 13.
- reduction of (BAMBERGER and KNECHT), A., i, 430.
- electrolytic reduction of (NOYES and DORRANCE), A., i, 22.
- behaviour of, towards phenylhydrazine (WALTHER), A., i, 542.
- poisonous effect of, on algae and infusoria (BOKORNY), A., ii, 669.
- Nitro-derivatives. See :—
- Acetamidocarbazole.
- Acetamidocarvacrol.
- Acetamidophenol.
- Acetamidoquinoline.
- Acetamidothymol.
- Acetanilide.
- Acetophenone.
- Alizarin.
- Aniline.
- Anilino benzoic acid.
- Anilino-*m*-cymene.
- Anilinetoluene.
- Anisaldehyde.
- o*-Anisidine.
- Anisole.
- Azimidobenzene.

Nitro-derivatives. See:—

Benzaldehyde.  
Benzaldehydophenylhydrazone.  
Benzaldoxime.  
Benzazoinide.  
Benzene.  
Benzeneazoacetamidophenol.  
Benzene-4-azo-2-aminophenol.  
Benzeneazoguaiacol.  
Benzene-2 : 1-diazoxide.  
Benzenediazonium.  
Benzethylenamide.  
Benzethylimide.  
Benzhydrazide.  
Benzoic acid.  
Benzomethylamide.  
Benzoylazoimide.  
*p*-Benzoylbenzoic acid.  
*p*-Benzoyl-*p*-benzoylbenzoic acid.  
Benzoylsalicylic acid.  
Benzoyl-*o*-toluic and benzoyl-*m*-toluic acids.  
4-Benzylaniline.  
Benzylanisidine.  
Benzyl-*o*-benzoicsulphinide.  
Benzylic hydrosulphide.  
Benzylic methylic sulphide.  
Benzylideneaminobenzylaniline.  
Benzylideneaminophenylimido- $\beta$ -butyric acid.  
Benzylideneaniline.  
Benzylidenediaminopentamethylene-tetramine.  
Benzylidenephnylhydrazone.  
Benzylmalonic acid.  
Benzylmethylnitramine.  
Benzyl-*o*-sulphamidobenzoic acid.  
Bidiphenylene-ethane.  
*iso*-Butylic alcohol.  
Camphor.  
Camphenolide.  
Carbamide.  
Carbazole.  
Carbostyryl.  
Carboxyphenylmalonic acid.  
Carvacrol.  
Catechol.  
Cholesterylic chloride.  
Cresol.  
 $\psi$ -Cubebin.  
*m*-Cymene.  
1 : 3 : 5-Cymidine.  
Decane (di-*iso*-amyl).  
Diazamidobenzenes.  
Diazobenzene.  
*iso*-Diazobenzene hydroxide.  
Diazobenzenebenzoylhydrazine.  
Diazobenzenehydroxyamidomethane.  
Diazobenzeneimide.  
*bis*-Diazobenzene-pentamethylene-tetramine.  
Diazobenzenethiophenyl ether.

Nitro-derivatives. See:—

6 : 1-Diazoxy-2-anisole.  
Dibenzamido-*p*-xylene.  
Dibenzophenylethylenediamine.  
Dibenzylacetic acid.  
Dibenzylacetoacetic acid.  
Dibenzylbenzidine.  
Dibenzylcyanacetic acid.  
Dibenzylhydantoin.  
Dibenzylmalonic acid.  
Dihydroxybutane, tertiary.  
Dimethylaniline.  
Dimethylanilinesulphonic acid.  
Dimethylbarbituric acid.  
Dimethylmalonimide.  
Dimethyloxamide.  
Dimethyltoluidine.  
Diphenyl.  
Diphenylamine.  
Diphenylcarbamide.  
Diphenylguanidine.  
Diphenylmethane.  
Diphenylmethenylamine.  
 $\beta\mu$ -Diphenyloxazole.  
Diphenylsulphoxide.  
Diisopropylmethane.  
Dithienylphenylmethanes.  
Ethane.  
Ethoxyphenylhydrazine.  
Ethylcarbamide.  
Ethylmesitylene.  
Fluorenone.  
Glycerol.  
Guaiacol.  
Guanidine.  
Heptane.  
Hexane.  
Hydrazines.  
4-Hydroxybenzoic acid.  
Hydroxydiphenylamine.  
Hydroxypyridines.  
1-Hydroxyquinoline.  
Indole-2'-carboxylic acid.  
Indophenazine.  
Isatinsemicarbazone.  
Menthone.  
Mesidine.  
Mesitylene.  
Mesitylenic acid.  
Methane.  
Methaneazobenzene.  
*p*-Methoxydiphenylamine.  
Methylaniline.  
Methylbenzylamine.  
Methylbenzylbenzamide.  
*m*-Methylisobutylbenzene.  
Methylethenylacetamidophenylamide.  
Methylethenylphenylenamidine.  
Methyl- $\alpha$ -ethylpropylmethane.  
*m*-Methylhexylbenzene.  
3-Methylindazole.

## Nitro-derivatives. See :

Methylisoozalone.  
 1'-Methylquinoline.  
 Methyltoluidine.  
 Naphthalene.  
 Naphthalenedicarboxylic acid.  
 $\alpha$ -Naphthol.  
 Naphthylbenzyl nitrosamine.  
 $\alpha$ -Naphthyl carbonate.  
*iso*-Narcotine.  
 Nononaphthene.  
 Octane.  
 Opianic acid.  
 Opianic acid  $\beta$ -naphthylamine.  
 Opian- $\beta$ -naphthylamic acid.  
 Orcinol.  
 Pentane.  
 Phellandrene.  
 Phenol.  
 Phenolphthalein.  
*p*-Phenoxybenzoic acid.  
 Phenyl *p*-tolyl ketone.  
 Phenyl *p*-tolyl ketoxime.  
 Phenyl *p*-tolylphenylene diketone.  
 Phenyl *o*-, *m*-, and *p*-xylyl ketones.  
 Phenylacetic acid.  
 Phenylazimidobenzene.  
 Phenylbenzoic acid.  
 Phenylbenzoylsemicarbazide.  
 Phenylbenzyl nitrosamine.  
 Phenylcinnamic acid.  
 Phenyl diazosulphonic acid.  
 Phenylacetic propionic acid.  
 Phenylethylmethane.  
 Phenylhydrazine.  
 Phenylhydrazinedisulphonic acid.  
 Phenylic bisulphide.  
 Phenylic ether.  
 Phenylmalonic acid.  
     bromo-.  
 Phenylmethane.  
 1 : 3-Phenylmethylpyrazolone-4-azobenzene.  
 Phenyl naphthalene.  
 Phenyl nitrosamine.  
 Phenylpropionic acid.  
 Phenylisopropylmethane.  
 1 : 3-Phenylpyrazolone.  
 Phenylpyridine.  
 Phenylquinoline.  
 Phenyltartronic acid.  
 Phenyltetrahydroquinazoline.  
 Phenyl-*p*-toluic acid.  
 Phenyltolyl.  
 Phenylurethane.  
 Phthalic acid.  
 Picryldehydropiperidide.  
 Piperonylacetone.  
 Piperonylmethane.  
 Piperonylpropylene.  
 Propane.  
 Propylmesitylene.

## Nitro-derivatives. See :—

Quinoline.  
 Resorcinol.  
 Resorcinol diethyl ether.  
 Tetramethyldiaminotriphenylmethane.  
 Thiophen.  
 Thymol.  
 Thymotic acid.  
 Toluene.  
 Tolylmethylnitramine.  
 Tolylmethylnitrosamine.  
 Trihydroxybutane, tertiary.  
 Trimethylindolinone.  
 Trimethylindolium hydroxide.  
 Tricumaldehyde.  
 Uramidobenzoic acid.  
 Urethane.  
 Urethaneacetic acid.  
 Veratrole.  
 Xylan.  
 Xylene.  
 Xylyleneazodiamine.  
 Xylyleneazodipthalimide.  
 Xylidine.  
 Nitrogen in firedamp (SCHLÆSING),  
     A., ii, 655.  
 ammoniacal, in minerals (ERDMANN),  
     A., ii, 570.  
 behaviour of, when submitted to the  
 electric discharge (COLLIE and  
 RAMSAY), A., ii, 634.  
 a material for the absorption of  
 (WARREN), A., ii, 646.  
 combination of, with metals in pre-  
 sence of calcium carbide (ROSSEL),  
     A., ii, 299.  
 action of heated metals on (ASLANO-  
 GLOU), A., ii, 417.  
 absorption of, by alkaline earth metals  
 (MAQUENNE), A., i, 299.  
 absorption of, by barium (LIMB), A.,  
     ii, 299.  
 absorption of, by magnesium (RAY-  
 LEIGH and RAMSAY), A., ii, 102.  
 Nitrogen thiobromides (CLEVER and  
 MUTHMANN), A., ii, 298.  
 iodide, preparation and analysis of  
 (CHATTAWAY), T., 1575; P.,  
     1896, 173.  
 constitution of (CHATTAWAY), T.,  
     1572; P., 1896, 172.  
 behaviour of, to reagents (CHATTAWAY),  
     T., 1578; P., 1896, 73.  
 combination of, with oxygen (RAY-  
 LEIGH and RAMSAY), A., ii, 101.  
 Nitrous oxide and ethane, critical  
 phenomena of mixtures of (KTE-  
 NEN), A., ii, 10.  
 solubility of, in water and solutions  
 of salts (GORDON), A., ii, 154.

Nitrogen :—

- Nitrous oxide, decomposition of, by shock (MAQUENNE), A., ii, 87.
- action of ammonia on, in presence of sodium (CURTIUS), A., i, 338.
- combination of, with carbonic oxide (DIXON), T., 780; P., 1896, 56.

Hyponitrous acid (HANTZSCH), A., ii, 520.

- preparation of (TANATAR), A., ii, 417.

- formation of, by reduction of nitrosulphates (DIVERS and HAGA), T., 1613; P., 1896, 179.

- silver salt of, preparation of (PILOTY), A., i, 556.

Nitric oxide, liquid and solid (DEWAR), P., 1895, 225.

- action of, on oxides and salts (AUDEN and FOWLER), A., ii, 172.

- compounds of, with ferrous chloride (THOMAS), A., ii, 26.

- spectroscopic examination of compounds of hæmoglobin with (GAMGEE), A., i, 713.

Nitrous acid, depolarising action of, in a Grove's cell (IHLE), A., ii, 460, 554.

- action of, on gluten-peptone (PAAL), A., i, 455.

- action of, on proteids and salicylic acid (LANDSTEINER), A., i, 584.

Nitrites, detection of (DENIGÈS), A., ii, 336.

- detection of, by cuprous salts (SABATIER), A., ii, 622

- detection of, in presence of tartrates, nitrates, and chlorates (DENIGÈS), A., ii, 332.

- estimation of, in water (GILL and RICHARDSON), A., ii, 340.

Nitric peroxide, solubility of, in antimony trichloride (THOMAS), A., ii, 609.

- action of, on bismuth chloride (THOMAS), A., ii, 429.

Nitric acid, potential difference between platinum and (IHLE), A., ii, 460.

- formation of ammonia by electrolysis of (IHLE), A., ii, 464.

- action of, on silver (HIGLEY and DAVIS), A., ii, 560.

Nitrates, mineral, genesis of (GAUTIER), A., ii, 185.

- in Grigualand West, origin of (MARLOTH), A., ii, 529.

- in potable waters (SCHLOESING), A., ii, 541.

VOL. LXX. ii.

Nitrogen :—

- Nitrates, detection of, in presence of tartrates, nitrites, and chlorates (DENIGÈS), A., ii, 332.

See also under Agricultural Chemistry (Appendix).

Nitrogen sulphide (CLEVER and MUTHMANN), A., ii, 298.

- acids containing sulphur and (WAGNER), A., ii, 599.

- compounds of, with sulphur and oxygen (CLEVER and MUTHMANN), A., ii, 298.

Nitrogen organic compounds, stereochemistry of (MILLER and PLÖCHL), A., i, 534.

- pentethyl, attempts to prepare (LACHMANN), A., i, 460.

- assimilation and fixation of, by plants, &c. See under Agricultural Chemistry (Appendix).

Nitrogen, estimation of, by the absolute method (DUNSTAN and CARR), P., 1896, 48.

- estimation of, volumetrically (DE KONINCK), A., ii, 77.

- estimation of, safety distillation tube for (HOPKINS), A., ii, 543.

- estimation of, in platinumchlorides by Kjeldahl's method (VAN DAM), A., ii, 218.

- organic, estimation of, by the Kjeldahl process (CAUSSE), A., ii, 72.

- estimation of, in cheese (STUTZER), A., ii, 684.

- estimation of, in Peruvian guano (HEIBER), A., ii, 217.

- estimation of, in manures containing nitrates (SHERMAN), A., ii, 125.

- estimation of, in urine by the hypobromite process (ALLEN), P., 1896, 31.

Nitrogenous matter, removal of, from malt and beer worts (EHRICH), A., ii, 540.

Nitrogenous substances, action of polysulphides on (AUFSCHLÄGER), A., ii, 574.

ψ-Nitroles, oxidation products of (BORN), A., i, 198.

Nitro-o-derivatives. See :—

- β-Anilidopropionic acid.
- Benzene.
- Benzoic acid.
- Carbamic acid.
- Carbanide.
- Dibenzylbenzidine.
- Dimethylaniline.
- Dimethylnaphthalenes.
- Diphenylamine.
- Diphenylsenicarbazine.
- Diisopropylmethane.

- Nitroso-derivatives. See:—  
 Ferrophénylmercaptide.  
 Heptane.  
 Hydroxynaphthoic acid.  
 Methylamine.  
 Methylisobutylamine.  
 Methylpropylamine.  
 Naphthylphenylcarbazoles.  
 Nortropinone.  
 Octane.  
 Pentane.  
 Phenylaminoacetylazoimide.  
 Phenyleneethylenediamine.  
 3'-Phenylindazole.  
 Pipecolinic acid.  
 Propane.  
 Pulegone.  
 Scopoligenine.  
 Stilbenedisulphonic acid.  
 Tetric acid.  
 Trimethylenephenylenediamine.  
 Urethane.  
 Urethaneacetic acid.  
 Xylene.
- Nitroxysulphurous acid. See Sulphur—  
 dinitrososulphonic acid.
- Nodules of Leguminosæ, percentage of  
 nitrogen in (STOKLASA), A., ii, 205.
- Nomenclature of ring compounds  
 (RICHTER), A., i, 349.
- Nonoic acid. See Ennoic acid.
- Nononaphthene. See 1 : 2 : 5-Tri-  
 methylcyclohexane.
- Nonylamine. See Ennylamine.
- Nonylic alcohol. See Ennylic alcohol.
- Nopic acid, structure of (VON BAEYER  
 and VILLIGER), A., i, 623.  
 metallic salts of (VON BAEYER and  
 VILLIGER), A., i, 622.  
 sodium salt (VON BAEYER), A., i, 247.
- Nopinone: its oxime, and semicarba-  
 zone (VON BAEYER and VILLIGER),  
 A., i, 623.
- Norpic acid, silver salt (VON BAEYER),  
 A., i, 621.  
 aldehyde and semicarbazone from  
 (VON BAEYER), A., i, 620.
- Norsparteine, an impure form of  
 sparteine (HERZIG and MEYER), A.,  
 i, 68.
- Nortropinone and its derivatives (WILL-  
 STÄTTER), A., i, 582.  
 carbamate (WILLSTÄTTER), A., i, 582.  
 conversion of, into  $\psi$ -tropigenine  
 (WILLSTÄTTER), A., i, 655.
- Nortropinone, nitroso- (WILLSTÄTTER),  
 A., i, 582.
- Nortropinonoxime: its *n*-benzoyl de-  
 rivative (WILLSTÄTTER), A., i, 582.
- Northupite from California (FOOTE),  
 A., ii, 184.  
 artificial (SCHULTEN), A., ii, 610.
- Nucleic acid, decomposition of (KOSSEL  
 and NEUMANN), A., i, 658.  
 microchemical reactions of (HEINE),  
 A., ii, 489.
- Nuclein as a source of uric acid  
 (UMBER), A., ii, 666.  
 as a source of uric acid in the body  
 (WEINTRAUD), A., ii, 488.  
 as a source of the uric acid of urine  
 (CAMERER), A., ii, 379.
- Nut, Brazil, proteids of (OSBORNE and  
 CAMPBELL), A., i, 716.  
 hazel-, proteids of (OSBORNE and  
 CAMPBELL), A., ii, 716.
- Nut-oil, oxidisability of (BISHOP), A.,  
 ii, 399.
- Nutmeg, analysis of (BUSSE), A., ii, 82.
- Nutrition of plants, moulds, &c. See  
 Agricultural chemistry (Appendix).
- O.
- Oats. See Agricultural chemistry  
 (Appendix).
- Oat-kernel, proteids of (OSBORNE and  
 CAMPBELL), A., i, 716.
- Oatmeal, proteids from (KJELDAHL),  
 A., i, 583.
- Obituary notices: S. W. M. Davy, T., 733.  
 Robert Galloway, T., 733.  
 George M. Roberts, T., 734.  
 Henry Davis Pochin, T., 735.
- Oehres, natural (GIN), A., ii, 479.
- Octane, normal, heat of evaporation of  
 (LUGININ), A., ii, 146.  
 $\beta\beta$ -dinitro- (BORN), A., i, 199.  
 $\beta$ -nitro- $\beta$ -nitroso- (BORN), A., i, 199.
- OCTANOIC ACID: Propylallylacetic acid  
 (HJELT), A., i, 598.
- OCTENYLIC ALCOHOL: *iso*-Butylallylcar-  
 binol, action of potassium hydrogen  
 sulphate on (FOURNIER), A., i, 457.
- OCTINENES:—  
 Methyl-6-heptadiene-1 : 3 (FOUR-  
 NIER), A., i, 457.  
 Methylamylacetylene, action of water  
 on (DESGREZ), A., i, 2.
- OCTINOIC ACID: Diallylacetic acid, am-  
 monium salt, action of heat on  
 (OBERREIT), A., i, 662.  
 ethylic salt, action of hydrogen brom-  
 ide on (OBERREIT), A., i, 666.
- OCTINOIC AMIDE: Diallylacetamide  
 (OBERREIT), A., i, 662.
- OCTINONITRILE: Diallylacetonitrile and  
 its reduction (OBERREIT), A., i, 662.
- OCTINYLAMINE: Diallylethylamine: its  
 hydrochloride and platinochloride  
 (OBERREIT), A., i, 662.  
 hydrochloride, action of silver nitrite  
 on (OBERREIT), A., i, 662.



**OCTINYLAMINE:** Diallylethylamine nitrite and the action of heat on (OBERREIT), A., i, 662.

**OCTINYLIC ALCOHOL:** Diallylethyl alcohol (OBERREIT), A., i, 662.

**OCTOIC ACIDS:—**  
 Octoic acid (*caprylic acid*), amino- (BEHREND), A., i, 410.  
*α*-Propylvaleric acid, methylic salt (OBERREIT), A., i, 666.  
 Dipropylacetic acid, *di*-bromo- (OBERREIT), A., i, 666.

**OCTOLACTONES:** *α*-Propylvalerolactone (HJELT), A., i, 598; (OBERREIT), A., i, 666.  
 bromo- (OBERREIT), A., i, 666.  
*iso*-Propylvalerolactone (HJELT), A., i, 598.

**OCTYLENEGLYCOL:—** 2 : 2 : 4-Trimethylpentane-1 : 3-diol, action of sulphuric acid on (FRANKE), A., i, 404.  
 oxidation of (FRANKE), A., i, 404.

**Octylic alcohol,** action of light on (RICHARDSON and FORTY), T., 1352; P., 1896, 164.  
 bromide, chloride, and iodide, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1173, 1236, 1237.

**Octylidene (*caprylidene*),** action of water on (DESGREZ), A., i, 2.

**Octyl-*α*-pseudonitrole.** See Octane, *β*-nitro-*β*-nitroso-.

**Octylquinoxalinedodecoic acid** (SPIECKERMANN), A., i, 410.

**Enanthaldehyde.** See Heptaldehyde.

**Enanthic acid (*enanthylic acid*).** See Heptic acid.

**Enanthylidene.** See Heptylidene.

**Enanthylidene compounds.** See Heptylidene compounds.

***Enothera Jaquinii*,** occurrence of galactan and arabian in (YOSHIMURA), A., ii, 60.

**Oil from capsicum seeds** (VON BITTÓ), A., ii, 209.  
 of *Cochlearia officinalis* (HOFMANN LECTURE), T., 718.  
 cotton seed, existence of sulphur compound in (DUPONT), A., i, 409.  
 action of silver nitrate on (DUPONT), A., i, 409.  
 ethereal, from Sagapen (HOHENADEL), A., i, 58.  
 from opoponax (BAUR), A., i, 57.

**Oils,** effect of temperature on the refractive power of (BECKURTS and HEILER), A., ii, 81.  
 critical temperatures of solutions of (CRISMER), A., ii, 506.  
 a new constant for the identification of (CRISMER), A., ii, 506.

**Oils,** estimation of the oxidisability of (BISHOP), A., ii, 398.  
 estimation of heat of bromination of (WILEY), A., ii, 549.  
 chloro-iodine process, improvement on (WALLER), A., ii, 454.  
 animal, detection of, in mineral oil (HALPHEN), A., ii, 399.  
 ethereal, analysis of (HIRSCHSOHN), A., ii, 223.  
 fatty, action of sulphur on (ALTSCHUL), A., i, 126.  
 sulphur compounds of, hydrolysis of (ALTSCHUL), A., i, 126, 127.  
 detection of, in copaiba balsam (HIRSCHSOHN), A., ii, 508.

**fish,** analysis of (VEDRÖDI), A., ii, 81.

**mineral.** See Mineral oils.

***Secale cornutum*,** fatty, analysis of (MJOEN), A., ii, 506.

**vegetable,** detection of, in mineral oil (HALPHEN), A., ii, 399.  
 detection of, in lard (JEAN), A., ii, 455.  
 examination of (LEVIN), A., ii, 454.

**Oils.** See also :—  
*Abies canadensis* and *A. excelsa*, oils from.  
*Andropogon schænanthus* and *A. nardus*, oils from.  
 Angelica oil.  
 Aniseed, oil of.  
 Bergamot, oil of.  
 Cedarwood oil.  
 Colza oil.  
 Cotton-seed oil.  
 Eucalyptus oil.  
 Fennel oil.  
 Geranium oil.  
 Hempseed, oil of.  
*Hyoscyamus niger* seed oil.  
 Lard oil.  
 Lemon-grass, oil of.  
 Lignalloes, oil of.  
 Limes, oil of.  
 Linseed oil.  
 Mustard, oil of.  
 Nut oil.  
 Olive oil.  
 Origanum oil.  
 Palm oil.  
 Patchouli.  
 Pelargonium oil.  
*Picea vulgaris*, oil of.  
*Pinus sylvestris* and *P. pumilio*, oils of.  
 Poppy-seed oil.  
 Rhodinol.  
 Rosemary, oil of.  
 Roses, oil of.

## Oils. See:—

- Rosin oil.
- Santal wood oil.
- Secale cornutum*.
- Sesame oil.
- Strophanthus hispidus* seed oil.
- Thyme, oil of.
- Valerian, oil of.
- Whale oil.
- Wild marsh rosemary, oil of.
- Olefines, the chief products of electrolysis of fatty acids (HAMONET), A., i, 664.
- Oleic acid, action of sulphur on (ALTSCHUL), A., i, 126.
- alkali salts, behaviour of, with water (KRAFFT and WIGLOW), A., i, 80.
- cholesterylic salt of (HÜRTLE), A., ii, 485.
- Oligiste. See Hæmatite.
- Oligoclase from Mexico? (FOUQUÉ), A., ii, 532.
- from Thuringia (FROMME), A., ii, 370.
- Oligoclase-andesine from France (FOUQUÉ), A., ii, 532.
- Olivine from the Eifel (THADDÉE), A., ii, 372.
- from Norway (THADDÉE), A., ii, 372.
- Olivine group, composition and optical properties (PENFIELD and FORBES), A., ii, 373.
- composition, sp. gr., and isodimorphism in (THADDÉE), A., ii, 372.
- Olivine-andesite from New Zealand (SPEIGHT), A., ii, 192.
- Olive oil, oxidisability of (BISHOP), A., ii, 399.
- detection of paraffin in (CARPENTIER), A., ii, 452.
- Ommatic acid, preparation and properties of (ZOFF), A., i, 104.
- Onion, occurrence of quercetin in the outer skin of the (PERKIN and HUMMEL), T., 1295; P., 1896, 144.
- Onyx marbles (MERRILL), A., ii, 260.
- Opal, artificial precious (CESARO), A., ii, 253.
- from Bohemia (KATZER), A., ii, 187.
- from British Columbia (HOFFMANN), A., ii, 190.
- Opiananthranilic acid and its salts (LIEBERMANN), A., i, 683.
- Opianic acid (WEGSCHEIDER), A., i, 480.
- condensation of, with 1 : 3 : 2'-trimethylquinaldine (NENCKI), A., i, 256.
- methyl salts (WEGSCHEIDER), A., i, 480.

- Opianic acid,  $\psi$ -tropine salt of (LIEBERMANN), A., i, 683.
- ethylanilic lactone (LIEBERMANN), A., i, 233.
- ethylanilide. See Opianic acid ethylanilic lactone.
- methylketolide (LIEBERMANN), A., i, 683.
- $\beta$ -naphthylamine, bromo- (LIEBERMANN), A., i, 682.
- $\beta$ -naphthylamine, nitro- (LIEBERMANN), A., i, 682.
- $\alpha$ -naphthylaminic lactone (LIEBERMANN), A., i, 233.
- $\beta$ -naphthylaminic lactone (LIEBERMANN), A., i, 233.
- naphthylamides of. See Opianic acid naphthylaminic lactones.
- semicarbazone (LIEBERMANN), A., i, 232.
- methyl salt of (LIEBERMANN), A., i, 232.
- tetrahydroquinaldinic lactone (*Opianic tetrahydroquinaldide*) (LIEBERMANN), A., i, 233.
- tetrahydroquinolinic lactone (*Opianic tetrahydroquinolide*) (LIEBERMANN), A., i, 233.
- Opianic acid, bromo-, action of, on hydrocotarnine (LIEBERMANN), A., i, 711.
- nitro-, action of, on hydrocotarnine (LIEBERMANN), A., i, 711.
- Opian- $\beta$ -naphthylaminic acid and its sodium and methylic salts (LIEBERMANN), A., i, 233.
- nitro-, sodium salt of (LIEBERMANN), A., i, 682.
- Opianoximic acid anhydride (WEGSCHEIDER), A., i, 480.
- Opian, 1 : 1 : 3 : 2'-trimethylquinoline and its platinochloride (NENCKI), A., i, 256.
- Opium, estimation of (DOTT), A., ii, 283.
- estimation of morphine in (KEBLER), A., ii, 403.
- Optical activity. See Light, rotatory power.
- Opoponax, examination of (BAUR), A., i, 57.
- Opuntia*, occurrence of galactan in (YOSHIMURA), A., ii, 60.
- Orange, basic constituents of bitter (JAHNS), A., i, 712.
- Orangite from Norway (SCHMELCK), A., ii, 186.
- Orcinol, amino-, and its hydrochloride (HENRICH), A., i, 477.
- dinitro- (HENRICH), A., i, 477.
- acetoxime (HENRICH), A., i, 477.
- oxime, isomerism of (HENRICH), A., i, 476.

- Ores, Austrian, analyses of (JOHN and EICHLER), A., ii, 252.
- Bavarian, analyses of (SCHWAGER and GÜMBEL), A., ii, 431.
- Canadian, analyses of (HOFFMANN), A., ii, 191, 259.
- Servian, analyses of (LOSANITSCH), A., ii, 252; (STANOJEVIĆ), A., ii, 255.
- Organic compounds, detection of chlorine, bromine, and iodine in (RAIKOW), A., ii, 70.
- estimation of iodine in (SCHUYTEN), A., ii, 71.
- estimation of nitrogen in, by the Kjeldahl process (CAUSSE), A., ii, 72.
- estimation of sulphur in (ASBÓTH), A., ii, 448.
- Organic salts, estimation of zinc in (VON RITTER), A., ii, 578.
- Organic matter, oxidisable, estimation of, in cyanide solutions (BETTEL), A., ii, 276.
- Organum, oil, constituents of (GILDEMEISTER), A., i, 54.
- Organum smyrnaceum*, constituents of (GILDEMEISTER), A., i, 54.
- Ornithopus*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Ortho- and para- compounds, comparative actions of, on organisms (BOKORNY), A., ii, 668.
- Orthoclase from Bavaria (SCHWAGER and GÜMBEL), A., ii, 431.
- from Odenwald (CHELIUS), A., ii, 612.
- from Thuringia (FROMME), A., ii, 370.
- Ozazone.  $C_{15}H_{20}O_4N_4$ , derived from quercitol (KILIANI and SCHAFER), A., i, 586.
- Ozazones of furfuroids from barley-straw (CROSS, BEVAN, and SMITH), T., 1607; P., 1896, 174.
- Oscillaria leptotricha*, crystalline colouring matter from (MOLISCH), A., i, 660.
- Osmium:—Amidochlorosmic acid, potassium salt of (BRIZARD), A., ii, 654.
- Osmosis, initial rate of, in various liquids (LAZARUS-BARLOW), A., ii, 196.
- of blood-serum, initial rate of (BARLOW), A., ii, 664.
- through walls of living blood-vessels (LEATHES), A., ii, 196.
- Osmotic pressure, theory of (FITZGERALD), T., 905; P., 1896, 25.
- mathematical treatment of (VAN LAAR), A., ii, 154.
- Osmotic pressure and the law of active masses, connection between (JAKOWKIN), A., ii, 593.
- relation of, to initial rate of osmosis (LAZARUS-BARLOW), A., ii, 196.
- of blood-plasma (KOEPE), A., ii, 376.
- effects of changes of, in the blood (LEATHES), A., ii, 196.
- relation of, to secretion of urine (TAMANN), A., ii, 618.
- Osoctriazenedicarboxylic acid. See Azimidoethylenedicarboxylic acid.
- Osteomalacia, excretion of calcium salts in (REY), A., ii, 489.
- Ottrelite from Maryland (EAKINS), A., ii, 39.
- Ovarian cyst, analysis of liquid from (LIEBLEIN), A., ii, 263.
- Oxalacetic acid (MICHAEL and BUCHER), A., i, 85.
- from the ethylic salt and from ethylic asdiethoxysuccinate (MICHAEL and BUCHER), A., i, 599.
- from ethylic ethoxymaleic acid and ethoxymaleic acid (MICHAEL and BUCHER), A., i, 599.
- constitution of (MICHAEL and BUCHER), A., i, 600.
- Oxalacetic acid, ethylic salt of, reduction of (WISLICENUS), A., i, 672.
- Oxalic acid, action of light on a solution of ferric chloride and (LEMOINE), A., ii, 285.
- freezing points of aqueous solutions of (FONSOT), A., ii, 412.
- absorption by silk of dilute (WALKER and APFLEYARD), T., 1346; P., 1896, 147.
- action of inorganic acidic metallic oxides on (ROSENHEIM), A., i, 278, 348.
- action of uranyl oxalate on (FAY), A., i, 465.
- amount and source of, in urine (DUNLOP), A., ii, 263.
- amount of, in nodules (STOKLASA), A., ii, 205.
- Oxalic acid, aluminium, and potassium aluminium salts of (ROSENHEIM), A., i, 278, 279.
- chromium, and chromium potassium, salts of (ROSENHEIM), A., i, 279, 280, 348.
- iron and alkali iron, salts of (ROSENHEIM), A., i, 280, 348.
- uranous salt of (FAY), A., i, 464.
- Oxalic acid, aniline salt of (HOFMANN LECTURE), T., 641.
- butylamine salt (BERG), A., i, 8.
- ethylic salt, melting point of (v. SCHNEIDER), A., ii, 290.

- Oxalic acid, ethylic salt, molecular volume of, in organic solvents (NICOL, T., 143; P., 1895, 237. action of sodium on (FREY), A., ii, 107. condensation of, with bromobenzene (FREY), A., i, 99. condensation of, with piperazine (ROSDALSKY), A., i, 257. reduction of (WISLICIENUS), A., i, 672.
- Oxalic acid, amino-, oxime of, identity of, with hydroxyoxamide (SCHIFF and MONSACCHI), A., i, 209. imido, ethylic salt (NEF), A., i, 73. diimido-, ethylic and diethylic salts (NEF), A., i, 72.
- Oxalic acid, detection of, in putrefactive tissues (VITALI), A., ii, 454. estimation of, with potassium permanganate (BERTHELOT), A., ii, 70.
- Oxalmethylbutylhydrazide (FRANCHIMONT and VAN ERP), A., i, 275.
- Oxalylidimesitylic oxide (CLAISEN, TINGLE, and KERSTIENS), A., i, 562.
- Oxalylidiphenylguanidine, preparation of (HOFMANN LECTURE), T., 653.
- Oxallylthiouramil (FISCHER), A., i, 142.
- Oxamethane, action of phosphorus trichloride on (LACHMANN), A., i, 601.
- Oxamide, action of sodium hypochlorite on (DE CONINCK), A., i, 282. tartrate (TOPIN), A., i, 283.
- Ox-bile, preparation of bile acids from, and their colour reactions (RICHTER), A., i, 111.
- Oxides, metallic, ignited, solution of (BOENRÄGER), A., ii, 502.
- Oxime,  $C_{10}H_{18}BrO_2N$ , from dibromomenthone (BECKMANN and EICKELBERG), A., i, 313.  $C_{13}H_{15}NO$ , from the aldehyde condensation product of cinnamaldehyde and methyl ethyl ketone (SCHOLTZ), A., i, 368.  $C_{17}H_{17}NO$ , from the ketone condensation product of cinnamylideneacetone and benzaldehyde (SCHOLTZ), A., i, 368.
- Oximes, acidity of (GERILOWSKI and HANTZSCH), A., i, 374.
- Oximes. See also:—  
*o*-Acetamidobenzophenoneoxime.  
 Acetic acid, oxime of.  
 Acetoacetic acid, ethylic salt, oxime of.  
 Acetoacetate amphidioxime, ethylic salt.
- Oximes. See:—  
 Acetoacetic anilide, oxime of.  
 $\gamma$ -Acetobutyric acid, oxime of.  
 Acetone-oxime.  
 Acetoxime.  
 Acetylbutylic alcohol, oxime of.  
 Acetylisedioxime.  
 Acetylisopropylketopentamethylene, dioxime of.  
 Aldehydocitrazinic acid oxime.  
 Anisaldioxime.  
 Anisyl ethyl ketoxime.  
 Anthraquinoneoxime.  
 Azoxyphenyl *p*-tolyl ketoxime.  
 Benzaldioximes.  
 Benzenedioxime (quinonedioxime).  
 Benzenylaminioxime.  
 Benzenylloxime.  
 Benzophenoneoxime.  
 Benzoylcomaroneoxime.  
 Benzoylmethylic phenylic ether oxime.  
 Benzyl methyl ketoxime and dioxime.  
 Benzylidenacenaphthenoneoxime.  
 Benzylidenacetacetic acid oxime.  
 Benzylidenacetaminioxime.  
 Benzylidenementhoneoxime.  
 Benzylidenemethylhexenoneoxime.  
 Butyric acid, oxime of.  
 Butyrolactonedioxime.  
 Camphoroxime.  
 Chrysoketoxime.  
 2 : 4-Diethoxybenzoylformic acid oxime.  
 Dimethylglyoxime.  
 Dimethyl-2 : 5-hexanol-3-one-4, oxime of.  
 2 : 6-Dimethyl-3-oximidoctanic acid.  
 Diphenylene ketone oxime.  
 $\psi$ -Diphenylene ketone oxime.  
 4 : 5-Diphenyloctanedione, 2 : 7-, dioxime.  
 Ethenylamidoxime, cyan-.  
 Glucosamine hydrochloride, oxime of.  
 Homoterpenylic acid, oxime of.  
 Hydrochlorocarvoxime.  
 Hydroxybenzaldioximes.  
 Hydroxydihydrocarvoxime.  
 Hydroxynaphthaquinoneimide, oxime of.  
 Hydroxyquinolinequinoneoxime.  
 Ketodihydrophenotriazinioxime.  
 Ketone,  $C_{14}H_{22}O$ , oxime of.  
 Ketopinic acid, oxime of.  
 Malo. enediamidoxime.  
 Malonic acid, oxime of.  
 Menthoneoxime.  
*d*- and *l*-Menthoneoximes.  
 Menthoimic acid.  
 Mesitylaldioxime.  
*o*-Methoxybenzophenoneoxime.  
 Methyl anilidobutyl ketoxime.

Oximes. See:—

- Methyl benzamidobutyl ketoxime.
- Methyl  $\alpha$ -ethylpropyl ketoxime.
- Methylbenzhydroxamic acid.
- Methylbutyrolactone, bromo-, oxime of.
- Methylisobutylketopentamethyl-ene, dioxime of.
- 3-Methyl-5 isobutyl- $\Delta_2$ -cyclo-hexenone and its carboxylic acids, oximes of.
- Methyldihydroresorcinoldioxime.
- Methylglyoxime.
- Methyleyclohexanone, isonitroso-.
- Methycyclohexenoneoxime.
- 3-Methyl-5-hexyl- $\Delta_2$ -cyclohexenone and its carboxylic acids, oximes of.
- n*-Methyltropinonoxime.
- Naphthaquinoneoxime.
- $\alpha$ -Naphthylglyoxylic acid oxime.
- $\beta$ -Naphthyl benzoylmethyl ether, oxime of.
- Bisnitrosotetrahydrocarboxime.
- Nopinoneoxime.
- Nortropinonoxime.
- Oxalic acid, amino-, oxime of.
- Oxydimethylnaphthol oxime.
- Papaveraldoxime.
- Phenyl *p*-tolyl ketoxime.
- Phenyl *m*-xylol ketoxime.
- Phenylacetoxime.
- iso*-Phoroneoxime.
- Pinonic acid, oxime of.
- $\alpha$ -Pinonic acid, oxime of.
- Pinononic acid, oxime of.
- Piperonaloxime.
- Propionic acid, oxime of.
- Propionylglycollic acid, oxime of.
- 5-*iso*-Propylheptan-2-onoic acid, oxime of.
- Pulegoneoxime.
- Pulegone, isonitroso-.
- Pyridineacetoxime.
- Rhodinaldoxime.
- Triacetoneaminoxime.
- Trimethylbenzaldoximes.
- Tropinoneoxime.
- Vinyldiacetoneaminoxime.
- Oximidooxalacetic acid and its salts (HANTZSCH and WILD), A., i, 285.
- action of alkalis on (HANTZSCH and WILD), A., i, 285.
- action of hydriodic acid on (HANTZSCH and WILD), A., i, 285.
- amide of (HANTZSCH and WILD), A., i, 285.
- Oximidopropionic-acetic acid and salts (HANTZSCH and WILD), A., i, 285.
- action of hydriodic acid on (HANTZSCH and WILD), A., i, 285.
- Oxyacanthine, properties and salts of (POMMERHNE), A., i, 67.

- Oxyacanthine, benzoyl derivative of (POMMERHNE), A., i, 67.
- Oxycellulose from fir-wood, non-identity of, with other oxycelluloses (DE HAAS and TOLLENS), A., i, 6.
- action of hydrochloric acid on (TOLLENS), A., i, 7.
- Oxychlorophosphines. See Phosphines, oxychloro-.
- Oxydase, a generic term for laccase, tyrosinase, &c. (BERTRAND), A., ii, 571.
- Oxygen of atmosphere, origin of (PHIPSON), A., ii, 265.
- atomic weight of (THOMSEN), A., ii, 471; (MORLEY), A., ii, 640.
- and hydrogen, ratio of their atomic weights (THOMSEN), A., ii, 244.
- preparation of (VITALI), A., ii, 92.
- behaviour of, when submitted to the electric discharge (COLLIE and RAMSAY), A., ii, 634.
- vapour pressures of liquid (ESTREICHER), A., ii, 150.
- density of (THOMSEN), A., ii, 471; (MORLEY), A., ii, 518.
- specific gravity of, and combustion in liquid (DEWAR), P., 1895, 226.
- velocity of attraction of, for hydrogen (TECLU), A., ii, 14.
- combination of hydrogen with (MEYER and RAUM), A., ii, 162.
- rate of combination of hydrogen with (GAUTIER and HÉLIER), A., ii, 416.
- quadrivalency of (BRÜHL), A., ii, 163.
- quadrivalent, organic compounds containing (ZECCHINI), A., i, 197.
- spectroscopic examination of compound of hæmoglobin with (GAMGEE), A., i, 713.
- physiological action of want of (LOEB), A., ii, 318.
- evolution of, by plants (PHIPSON), A., ii, 265.
- influence of, on fermentation by yeast (RAPP), A., ii, 668.
- Oxygen, estimation of, by pyrogallol, source of error in (CLOWES), P., 1895, 200.
- dissolved, estimation of (ROMIJN), A., ii, 579.
- estimation of, in air, &c. (KREIDER), A., ii, 124.
- estimation of, in commercial copper (BLOUNT), A., ii, 333.
- Oxygranatanine, its salts and benzoyl derivative (CIAMICIAN and SILBER), A., i, 397.
- Oxyhæmoglobin crystals, preparation of (ARTHUS), A., i, 400.
- from horses' blood (JUTT), A., i, 584.

- Oxyhaemoglobin, spectroscopic examination of (GAMGEE), A., i, 713.
- Oxymenthyllic acid (BECKMANN and MEHLANDER), A., i, 312.
- $\beta$ -Oxymethylpurin (FISCHER), A., i, 13, 14.
- dichlor- (FISCHER), A., i, 13.
- Oxyphosphazoanilides, probable constitution of (MICHAELIS and SILBERSTEIN), A., i, 344.
- Oxyphosphazobenzeneanilide and its ethylic and phenylic salts (MICHAELIS and SILBERSTEIN), A., i, 344.
- decomposition products of (MICHAELIS and SILBERSTEIN), A., i, 344.
- Oxyphosphazo-*m*-bromobenzenebromanilide and its ethylic salt (MICHAELIS and SILBERSTEIN), A., i, 344.
- compound of, with aniline and with phenol (MICHAELIS and SILBERSTEIN), A., i, 345.
- Oxyphosphazo-*m*-bromobenzenedibromanilide (MICHAELIS and SILBERSTEIN), A., i, 345.
- Oxyphosphazo-*m*-bromobenzenetri-bromanilide (MICHAELIS and SILBERSTEIN), A., i, 345.
- Oxyphosphazo-*m*-bromobenzenetri-chloranilide (MICHAELIS and SILBERSTEIN), A., i, 345.
- Oxyphosphazo-*m*-chlorobenzenechloranilide (MICHAELIS and SILBERSTEIN), A., i, 344.
- Oxyphosphazo-*o*-toluenetoluidide (MICHAELIS and SILBERSTEIN), A., i, 345.
- Oxyphosphazo-*p*-toluenetoluidide (MICHAELIS and SILBERSTEIN), A., i, 345.
- Oxyphosphazo-*p*-toluenebromo-*p*-toluidide (MICHAELIS and SILBERSTEIN), A., i, 345.
- action of acetic acid and of phenol on (MICHAELIS and SILBERSTEIN), A., i, 345.
- Oxysulphazotic acid. See Sulphur-nitrosodisulphonic acid.
- Ozone, generator for (SÉGUY), A., ii, 518.
- formation of, by the action of heated metallic oxides on oxygen (BRUNCK), A., ii, 93.
- formation of, from potassium chlorate and manganese dioxide (BRUNCK), A., ii, 93.
- formation of, by distilling permanganate and sulphuric acid in a vacuum (FRYE), A., ii, 417.
- absence of, in oxygen from manganese dioxide and potassium chlorate (MCLEOD), T., 1015; P., 1896, 104.
- Ozone, apparatus for demonstrating the properties of (NEWTN), T., 1298; P., 1896, 139.
- cause of the mist produced by (ENGLER and WILD), A., ii, 558.
- action of, on potassium iodide (BRUNCK), A., ii, 93.
- influence of, on the combustibility of dry carbonic oxide (DIXON), T., 785; P., 1896, 56.
- detection of, in air (ENGLER and WILD), A., ii, 574.
- separation of hydrogen peroxide from (ENGLER and WILD), A., i, 574.
- Ozotoluene (RENARD), A., i, 149.
- Ozo-*o*-xylene (RENARD), A., i, 149.

## P.

- Pachyma Cocos*, analysis of (WINTERSTEIN), A., ii, 63.
- Paints, examination of (HEFELMANN and MANN), A., ii, 680.
- Palladium, melting point of (HOLBORN and WIEN), A., ii, 87.
- absorption of helium by (TILDEN), A., ii, 656.
- solubility of carbon in (MOISSAN), A., ii, 610.
- Palladium hydride, electrical conductivity of (KRAKAU), A., ii, 5.
- dissociation pressure of (KRAKAU), A., ii, 5.
- Palm oil, oxidisability of (BISHOP), A., ii, 399.
- Palmitic acid, action of light on (RICHARDSON and FORTY), T., 1349.
- behaviour of alkali salts of, with water (KRAFFT and WIGLOW), A., i, 80.
- cholesterylic salt of (HÜRTLE), A., ii, 485.
- Palmitic chloride, action of lead thiocyanate on (DIXON), T., 1594.
- n*-Palmityl-*p*-phenylbenzylthiourea, and action of silver nitrate on (DIXON), T., 1598; P., 1896, 223.
- a*-Palmityl-*b*-phenylbenzylurea (DIXON), T., 1598; P., 1896, 223.
- n*-Palmityl-*p*-phenylmethylthiourea (DIXON), T., 1597; P., 1896, 223.
- ab*-Palmitylphenylthiocarbamide (DIXON), T., 1595; P., 1896, 223.
- Palmitylphenylurea (DIXON), T., 1596; P., 1896, 223.
- Palmitylphytosterin (HESSE), A., i, 180.
- Palmitylthiocarbamide, action of silver nitrate on (DIXON), T., 1596.

- Palmitylthiocarbimide (DIXON), T., 1594; P., 1896, 223.  
 action of aniline, *o*- and *p*-toluidine, methylaniline, and benzylaniline on (DIXON), T., 1595—1598.
- ab*-Palmityl-*o*-tolylthiocarbamide, and action of silver nitrate on (DIXON), T., 1596; P., 1896, 223.
- ab*-Palmityl-*p*-tolylthiocarbamide, and action of silver nitrate on (DIXON), T., 1597; P., 1896, 223.
- ab*-Palmityl-*o*-tolylurea (DIXON), T., 1596; P., 1896, 223.
- ab*-Palmityl-*p*-tolylurea (DIXON), T., 1597; P., 1896, 223.
- Panaresinotannol (BAUR), A., i, 57.
- $\alpha$ - and  $\beta$ -Panax-resen (BAUR), A., i, 57.
- Pancreas, solubility of the amylolytic ferment of the, in alcohol (DASTRE), A., i, 398.
- Pancreatic juice, action of, on milk (HALLIBURTON and BRODIE), A., ii, 662.  
 action of, on trehalose, cane sugar, and maltose (BOURQUELOT and GLEY), A., ii, 315.
- Pangium edule*, formation of hydrocyanic acid in and presence of a reducing sugar in (TREUB), A., ii, 327.
- Papaveraldoxime, stereoisomerism of (HIRSCH), A., i, 191.  
 hydrochloride and dihydrochloride of (HIRSCH), A., i, 191.
- Papaveraldylamine, from papaveraldoxime (HIRSCH), A., i, 192.
- Papaverine, behaviour of, in the Stas-Otto process (OTTO), A., ii, 508.
- Papaverinic acid, methyl derivative of and methylbetaine of (HERZIG and MEYER), A., i, 68.
- Paper, detection of wood pulp in (WOLESKY), A., ii, 505.
- Papilionacea*, nitrogen assimilation of some (BILLIVILLER), A., ii, 440.
- Para- and ortho-compounds, comparative actions of, on organisms (BOKORNY), A., ii, 668.
- Parabanic acid, physiological action of (LUSINI), A., ii, 492.
- Paracasein. See Casein.
- Paraffin. See Mineral oil.
- Paraffin,  $C_{29}H_{60}$ , from Charas (WOOD, SPIVEY, and EASTERFIELD), T., 543; P., 1896, 76.
- Paragalactan. See Galactan.
- Paramyosinogen. See Myosinogen.
- Paranaphthalene. See Anthracene.
- Paraniline, discovery of (HOFMANN LECTURE), T., 689.
- Paranthracene. See Dianthracene.
- Parmelia encausta* and *P. pertusa*, occurrence of atranoric acid in (ZOFF), A., i, 103.
- Parmeliopsis hyperopta*, occurrence of atranoric acid in (ZOFF), A., i, 103.
- Partition coefficient. See Equilibrium.
- Patchouli-camphor, rotatory power of, in the crystalline and liquid states (FRAUBE), A., ii, 509.
- Patchouli oil, analysis of (HIRSCHSOHN), A., ii, 223.
- "Patent blue" (PRUD'HOMME), A., i, 485.
- Paucine, properties of, and its salt (MERCK), A., i, 68.  
 action of potash and concentrated hydrochloric acid on (MERCK), A., i, 68.
- Peach-kernel, proteids of the (OSBORNE and CAMPBELL), A., i, 715.
- Pearceite from Montana (PENFIELD), A., ii, 658.
- Peas. See Agricultural chemistry. (Appendix.)
- Peat in fermentative changes in water, action of (ADENEY), A., ii, 324.
- Pectase in plants (BERTRAND and MALLEVRE), A., ii, 267.
- Pectins, constitution of (CROSS), A., i, 77.
- Pectin-substances, analogy in composition of, to carbohydrates (DE HAAS and TOLLENS), A., i, 7.  
 probable constitution of (TOLLENS), A., i, 7.  
 products of hydrolysis of (DE HAAS and TOLLENS), A., i, 7.
- Pelagaine (GRIFFITHS and PLATT), A., i, 182.
- Pelargonic acid. See Ennoic acid.
- Pelargonium oil. See Geranium oil.
- Pelargylaminoleucic acid (SPIECKERMANN), A., i, 410.
- Pelargylaminobrassicic acid, hydrolysis of (SPIECKERMANN), A., i, 410.
- $\psi$ -Pelletierine. See Granatnine.
- Pellotine, benzoyl derivatives of (HEILTER), A., i, 267.
- Penicillium glaucum*, assimilation of nitrogen by (PURIEWITSCH), A., ii, 571.  
 mineral nutrition of (BENECKE), A., ii, 572.  
 extraction of maltase from (BOURQUELOT), A., i, 111.  
 inversion of cane sugar by (FERMI and MONTESANO), A., ii, 493.
- Pentacarbon rings, synthesis of (JAPP and MURRAY), P., 1896, 146.
- Pentacetyltetrabromomorin, preparation of (PERKIN and BABLICH), T., 795; P., 1896, 186.

*Pentaclethra macrophylla*, paucine the alkaloid of (MERCK), A., i, 68.

Pentadecic acid, bromo- (CIAMICIAN and SILBER), A., i, 596.

iodo- (CIAMICIAN and SILBER), A., i, 596.

Pentaglycol, action of hydriodic acid and phosphorus on (APEL and TOLLENS), A., i, 115.

iodhydrin (APEL and TOLLENS), A., i, 115.

Pentamethenylacetic acid. See *cyclo*-Pentylacetic acid.

Pentamethenylmalonic acid. See *cyclo*-Pentylmalonic acid.

Pentamethylaniline, nitrile and *iso*-nitrile obtained from (HOFMANN LECTURE), T., 710.

Pentamethylbenzoylpropionic acid (MUHR), A., i, 232.

Pentamethylæhydrobrazilin (HERZIG), A., i, 379.

Pentamethyldehydrohæmatoxylin (HERZIG), A., i, 379.

Pentamethylenetetramine, *diamino*- (DUDEN and SCHARFF), A., i, 122, 123.

*dinitroso*-, action of nascent hydrogen on (DUDEN and SCHARFF), A., i, 122.

Pentamethylenetetraminebisdiazobenzenesulphonic acid, salts of (DUDEN and SCHARFF), A., i, 123.

Pentane,  $\beta\beta$ -dinitro- (BORN), A., i, 198.

$\gamma$ -dinitro- (BORN), A., i, 198.

$\beta$ -nitro- $\beta$ -nitroso- (BORN), A., i, 198.

*iso*-Pentane,  $\beta\beta$ -dinitro- (BORN), A., i, 199.

$\beta$ -nitro- $\beta$ -nitroso- (BORN), A., i, 199.

Pentanedioic-3-dimethyloic acid. See Propanepentacarboxylic acid.

Pentanedioictetramethyloic-2 : 3 : 3 : 4-acid. See Propanehexacarboxylic acid.

Pentane- $\alpha\gamma\gamma\alpha$ -tetracarboxylic acid (HEINKE and PERKIN), T., 1509.

action of heat on (HEINKE and PERKIN), T., 1509.

ethylic salt (HEINKE and PERKIN), T., 1509.

Pentanetetronal. See Lyxose.

PENTANETRICARBOXYLIC ACIDS:—

*n*-Pentane- $\alpha\gamma\alpha_1$ -tricarboxylic acid (HEINKE and PERKIN), T., 1510.

Dimethylpropane- $aaa_1$ -tricarboxylic acid, action of heat on (PERKIN and GOODWIN), T., 1474.

and salts (PERKIN and GOODWIN), T., 1473.

ethylic salt (PERKIN and GOODWIN), T., 1472; P., 1896, 170.

PENTANETRICARBOXYLIC ACIDS:—

Dimethylpropane- $aaa_1$ -tricarboxylic acid, sodio-, ethylic salt, action of phenoxyethylic bromide on (PERKIN), T., 1500; P., 1896, 170.

Pentaphenyldiguanide: its hydrochloride and platinumchloride (MACKWALD), A., i, 30.

Pentene, keto-. See Ketopentene.

*cyclo*-Pentene, *di*bromo- (KRAEMER and SPILKER), A., i, 290.

*tetrabromo*- (KRAEMER and SPILKER), A., i, 290.

*chloro*- (KRAEMER and SPILKER), A., i, 290.

*trichloro*- (KRAEMER and SPILKER), A., i, 290.

*tetrachloro*- (KRAEMER and SPILKER), A., i, 290.

PENTENOIC ACIDS:—

Propyldieneacetic acid (SPENZER), A., i, 128.

$\beta\beta$ -Dimethylacrylic acid (PERKIN and GOODWIN), T., 1469; P., 1896, 170.

ethylic salt (PERKIN and GOODWIN), T., 1470, 1471.

action of ethylic sodiomalonate on (PERKIN and GOODWIN), T., 1472; P., 1896, 170.

Penterythritol, action of sulphur chloride on (BOUGAULT), A., i, 662.

*di*chlorhydrin (BOUGAULT), A., i, 662.

bisulphite, and action of sulphur chloride on (BOUGAULT), A., i, 662, 663.

Penterithrytoldibenzal (APEL and TOLLENS), A., i, 115.

Penterythritoltetrabromhydrin, reduction of (GUSTAVSON), A., i, 669.

Pentiazoline,  $\gamma$ -bromo- $\mu$ -amido- ( $\beta$ -bromotrimethylene- $\psi$ -thiourea),

and its constitution of (DIXON), T., 19, 23, 24; P., 1895, 216.

action of hydrochloric acid on (DIXON), T., 20; P., 1895, 215.

action of nascent hydrogen on (DIXON), T., 24.

action of picric acid on (DIXON), T., 21; P., 1895, 216.

action of hydrobromic acid on (DIXON), T., 20; P., 1895, 215.

$\gamma$ -iodo- $\mu$ -amido- ( $\beta$ -iodotrimethylene- $\psi$ -thiourea), picrate of, and action of silver nitrate on (DIXON), T., 26; P., 1895, 216.

PENTINENE:—

Dimethylisallylene (IPATIEFF), A., i, 402.

action of hydrogen bromide on (IPATIEFF), A., i, 330.



- Pentosans, absorption of, in the alimentary canal (WEISKE), A., ii, 375.  
 estimation of, by the furfuraldehyde method (MANN, KRÜGER, and TOLLENS), A., ii, 393; (STIFT), A., ii, 453; (TOLLENS), A., ii, 580.  
 estimation of, in sugar beet, &c. (STIFT), A., ii, 79.
- Pentose, change of hexose to, derivatives in cereal cellulose (CROSS, BEVAN, and SMITH), T., 1609; P., 1896, 175.  
 presence of, in urine (SALKOWSKI), A., ii, 490.
- Pentose-monoformal, formation of, from a hexose in plants (CROSS, BEVAN, and SMITH), T., 1610; P., 1896, 175.
- Pentoses, action of alkalis on (CROSS, BEVAN, and SMITH), T., 816; P., 1896, 96.  
 formation of, in plants (GOETZE and PFEIFFER), A., ii, 443.  
 origin of, in plants (CROSS, BEVAN, and SMITH), T., 805; P., 1896, 96.  
 oxidation of, by hydrogen peroxide (CROSS, BEVAN, and SMITH), T., 814; P., 1896, 96.  
 detection of, by precipitation (TOLLENS), A., ii, 504.  
 estimation of, by the furfuraldehyde method (MANN, KRÜGER, and TOLLENS), A., ii, 393; (STIFT), A., ii, 453; (TOLLENS), A., ii, 580.  
 estimation of, in sugar beet, &c. (STIFT), A., ii, 79.
- cyclo*-Pentylacetic acid and its salts (VERWEY), A., i, 671.  
 ethylic salt of (VERWEY), A., i, 671.
- cyclo*-Pentylmalonic acid and its salts (VERWEY), A., i, 671.  
 ethylic salt of (VERWEY), A., i, 671.
- Peonol, bromo- [OMe : OH : CO = 4 : 2 : 1] (FRIEDLÄNDER and RÜDT), A., i, 637.
- Pepper, action of, on digestion (GOTTLIEB), A., ii, 42.  
 analysis of (BUSSE), A., ii, 82.
- Pepsin, solubility of, in alcohol (DASTRE), A., i, 398.  
 influence of salts on the activity of (DASTRE), A., ii, 118.
- Peptone, action of acetic anhydride on (SCHROTTER), A., i, 515.  
 absorption of, by the intestine (REID), A., ii, 318.  
 absorption of, in the small intestine (FRIEDLÄNDER), A., ii, 536.  
 nutritive value of (ELLINGER), A., ii, 536.  
 injections, effects of, on blood (STARLING), A., ii, 197.
- Peptone, tests for (SCHROTTER), A., i, 112.  
 estimation of (KÖNIG and BÖMER), A., ii, 83.  
 estimation of, in beerwort (SCHJERNING), A., ii, 631.  
 estimation of, in cheese (STUTZER), A., ii, 684.  
 commercial, estimation of gelatin in (STUTZER), A., ii, 84.
- Peptones. See further Antipeptone; Gland-peptone; Propeptone.
- Percylite, artificial (FRIEDEL), A., ii, 32.
- Perilla nankinensis*, dyes of (WEIGERT), A., i, 388.
- Periodic arrangement of the elements, and colour (LEA), A., ii, 639.  
 character of the colour of elementary ions (LEA), A., ii, 594.
- Periodic law, L. Meyer's contributions to the (BEDSON), T., 1414; P., 1896, 119.
- Periodic system, solubility and diffusivity of metals in mercury related to their position in the (HUMPHREYS), T., 1683; P., 1896, 220.  
 supposed group of inactive elements (THOMSEN), A., ii, 16.  
 position of tellurium in the (REYGERS), A., ii, 520.  
 classification of minerals according to (SCHULZE), A., ii, 566.
- Periodicity of the colour of ions (THOMSEN), A., ii, 16.  
 of the properties of the elements, analytical representation of the (GOLDHAMMER), A., ii, 471.  
 of the properties of the elements, a function corresponding with the (FLAVITZKY), A., ii, 355.
- "Perkin's green," discovery of (HOFMANN LECTURE), T., 618.
- Peronospora*, effect of copper salts on (BERLESE and SOSTEGNI), A., ii, 267.
- Petroleum. See Mineral oil.
- Phaselin, preparation and properties of (OSBORNE), A., i, 455.
- Phaseolin, preparation and properties of (OSBORNE), A., i, 454.
- Phaseolus multiflorus*, effect of alkaloids on the germination of seeds of (MOSSO), A., ii, 326.  
*vulgaris*, proteids of (OSBORNE), A., i, 454.
- Phases, applications of the rule of (MEYERHOFFER), A., ii, 414.
- Phellandrene nitrite, reduction of (WALLACH and HERBIG), A., i, 101.  
 nitro- (WALLACH and HERBIG), A., i, 101.

- d*-Phellandrene, source of (WALLACH and HERBIG), A., i, 101.
- l*-Phellandrene, source of (WALLACH and HERBIG), A., i, 101.
- Phenacetic acid. See Phenylacetic acid.
- Phenaceturic acid, heat of combustion of (STOHMANN and SCHMIDT), A., ii, 466.
- Phenacetyl. See Phenylacetyl.
- Phenacylacetic acid. See  $\beta$ -Benzoylpropionic acid.
- Phenacyl bromide, from diazoacetophenone (ANGELI and RIMINI), A., i, 363.
- Phenacyl-*o*-benzoisulphinide (ECKENROTH and KLEIN), A., i, 304.
- Phenacyl-*o*-benzoisulphinide hydrazone (ECKENROTH and KLEIN), A., i, 304.
- Phenacyldeoxypiperonoin, hydrazone of (SMITH and RANSOM), A., i, 322.
- Phenacysuccinic acid, preparation of (EMERY), A., i, 436.
- Phenacysuccinic anhydride (EMERY), A., i, 436.
- Phenacysulphamidobenzoic acid (ECKENROTH and KLEIN), A., i, 304.
- Phenanthrene, synthesis of (PSCHORR), A., i, 303.
- fluorescence of gaseous (WIEDEMANN and SCHMIDT), A., ii, 86.
- magnetic rotatory power, &c., of (PERKIN), T., 1088, 1151, 1196, 1242.
- heat of solution of, in ethylic alcohol and toluene (SPEYERS), A., ii, 411.
- Phenazine dyes, nomenclature of (JAUBERT), A., i, 325.
- Phenazylidiphenyldisulphone (HINSBERG and HIMMELSCHNEIN), A., i, 685.
- Phenazylphenylsulphone (HINSBERG and HIMMELSCHNEIN), A., i, 684.
- iso*-Phenethylmalic acid. See  $\alpha\beta$ -Hydroxydiphenylbutyric acid.
- p*-Phenetidine, melting point of (v. SCHNEIDER), A., ii, 290.
- $\beta$ -Phenetidylcrotonic acid, ethylic salt of (WENGHOFFER), A., i, 360.
- Phenetol (*phenyl ethyl oxide*), magnetic rotatory power, &c., of (PERKIN), T., 1080, 1081, 1186, 1240.
- o*-Phenetilazo-*p*-phenetol, reduction of (JACOBSEN and MEYER), A., i, 27.
- m*-Phenetilazo-*p*-phenetol, reduction of (JACOBSEN and MEYER), A., i, 27.
- p*-Phenetilazo-*p*-phenetol, reduction of (JACOBSEN and MEYER), A., i, 27.
- o*-Phenetilazo-*p*-phenol (JACOBSEN and MEYER), A., i, 27.
- m*-Phenetilazo-*p*-phenol (JACOBSEN and MEYER), A., i, 27.
- p*-Phenetilazo-*p*-phenol (JACOBSEN and MEYER), A., i, 27.
- 3'-*p*-Phenyldihydro- $\beta$ -phenotriazine and its salts (BUSCH and HARTMANN), A., i, 160.
- 3'-Phenetylketotetrahydroquinazoline (BUSCH and HARTMANN), A., i, 160.
- 3'-*p*-Phenethylthiotetrahydroquinazoline (BUSCH and HARTMANN), A., i, 160.
- Phenimesatin, 2-amino-, and its acetyl derivative (SCHUNCK and MARCILEWSKI), A., i, 235.
- Phenissic acid. chloro-. See Phenol, trichloro-.
- Phenol, isolation of, from coal-tar (HOFMANN LECTURE), T., 597.
- composition of (HOFMANN LECTURE), T., 641.
- properties of (HOFMANN LECTURE), T., 654.
- magnetic rotatory power, &c., of (PERKIN), T., 1064, 1090, 1181, 1239.
- effect of, on the freezing point of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 474.
- compound of, with aluminium chloride (PERRIER), A., i, 353.
- estimation of, in soaps and disinfectants (FRESENIUS and MAKIN), A., ii, 500.
- Phenol, *o*-amino-, decomposition of, with sodium hypochlorite (CONINCK), A., i, 364.
- p*-amino- (PLANCHER), A., i, 358.
- decomposition of, with sodium hypochlorite (DE CONINCK), A., i, 364.
- benzyl ether of, and its acetyl derivative (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.
- 1 : 3 : 5-*tribromo*-, compound of, with nitrosodimethylaniline. See Dimethylaniline.
- 2 : 4 : 6-bromodinitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1326; P., 1896, 163.
- 4 : 6 : 2-dibromonitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1329.
- 2 : 4 : 6-bromonitramino-, and its acetyl derivative (MELDOLA, WOOLCOTT, and WRAY), T., 1326; P., 1896, 163.
- o*-chloro-, compound of, with aluminium chloride (PERRIER), A., i, 354.
- p*-chloro-, compound of, with aluminium chloride (PERRIER), A., i, 354.

- Phenol, 2 : 4 : 6-*trichloro*-, preparation of (HOFMANN LECTURE), T., 641.  
 action of phosphorus pentachloride on (ZAHARIA), A., i, 646.  
 hydrogen phosphate of, and its salts (ZAHARIA), A., i, 646.  
 compound of, with nitrosodimethylaniline. See Dimethylaniline.
- α*-*hexachloro*-, dichloride (BARRAL), A., i, 91.  
*β*-*hexachloro*-, dichloride (BARRAL), A., i, 91.  
*γ*-*hexachloro*-, dichloride (BARRAL), A., i, 91.
- 2-chloro-4-nitro-, and its benzoyl and acetyl derivatives (MELDOLA, WOOLCOTT, and WRAY), T., 1328; P., 1896, 164.  
 2-chloro-5-nitro-, and its benzoyl derivative (MELDOLA, WOOLCOTT, and WRAY), T., 1325; P., 1896, 163.  
 4-chloro-3-nitro-, and its benzoyl and acetyl derivatives (MELDOLA, WOOLCOTT, and WRAY), T., 1322; P., 1896, 163.
- chlorodinitro-derivatives of (MELDOLA, WOOLCOTT, and WRAY), T., 1323.  
 2-chloro-4 : 6-dinitro- (MELDOLA, WOOLCOTT, and WRAY), T., 1328.  
 2 : 4 : 6-chloronitramino- (MELDOLA, WOOLCOTT, and WRAY), T., 1328.
- triiodo*-, preparation of (EDELEANU and ENESCU), A., i, 360.  
 compound obtained in the preparation of (EDELEANU and ENESCU), A., i, 360.
- o*-nitro-, discovery of (HOFMANN LECTURE), T., 698.  
 heat of combustion of (MATIGNON and DELIGNY), A., ii, 88.  
 effect of, on the freezing point of dilute soda solution (GOLD-SCHMIDT and GIRARD), A., i, 475.  
 compound of, with aluminium chloride (PERRIER), A., i, 353.
- p*-nitro- (HILL and TORRAY), A., i, 90.  
 electrolytic reduction of (NOYES and DORRANCE), A., i, 22.  
 heat of combustion of (MATIGNON and DELIGNY), A., ii, 88.  
 compound of, with aluminium chloride (PERRIER), A., i, 353.
- 2 : 4-dinitro- (DIEPOLDER), A., i, 615.  
 4-nitro-2-amino- (MELDOLA, WOOLCOTT, and WRAY), T., 1328; P., 1896, 164.
- Phenol, 5-nitro-2-amino- (MELDOLA, WOOLCOTT, and WRAY), T., 1325; P., 1896, 163.  
 4-5-dinitro-2-amino- (MELDOLA, WOOLCOTT, and WRAY), T., 1325.  
 5-nitro-3 : 2-diazoxy- (MELDOLA, WOOLCOTT, and WRAY), T., 1334; P., 1896, 164.  
 sodium derivative, molecular weight of (BECKMANN and SCHLIEBS), A., i, 124.
- Phenol, a, obtained by action of sodium ethoxide on apiole (CIAMICIAN and SILBER), A., i, 608.
- Phenolphthalein, refraction equivalent of (ANDERLINI), A., ii, 229.  
 explanation of its behaviour towards alkalis in alcoholic solution (JONES and ALLEN), A., ii, 467.  
 decolorisation of (HERZIG and MEYER), A., i, 237.  
 dimethyl ether of (GRANDE), A., i, 563.  
 dibenzoyl derivative of (BISTRZYKI and NENCKI), A., i, 237.
- Phenolphthalein, diamino-, dimethyl ether of (ERRERA and BERTÈ), A., i, 564.  
 dibromodiamino-, and its hydrochloride (ERRERA and BERTÈ), A., i, 564.  
 dibromodinitro-, and its diacetyl derivative (ERRERA and BERTÈ), A., i, 564.  
 dinitro-, and its mono- and dimethyl ethers (ERRERA and BERTÈ), A., i, 564.
- Phenols, freezing points of solutions of, in hydrocarbons (PATERNÒ), A., ii, 156.  
 and their derivatives, freezing points of solutions of, in naphthalene (AUWERS), A., ii, 156; (AUWERS and INNES), A., ii, 293.  
 action of magnesium on solutions of (VITALI), A., ii, 420.
- Phenols, thio-, action of bromo-derivatives of aromatic hydrocarbons on lead salts of (BOURGEOIS), A., i, 17.
- Phenols. See also:—  
 Anhydroglycopyrogallol.  
 Anthraflavic acid.  
*iso*-Anthraflavic acid.  
 Anthranol.  
 Benzoylmethylresorcinol.  
 Benzylideneanhydroglycogallol.  
 Carvacrol.  
 Catechol.  
 Creosol and *iso*-Creosol.  
*o*-, *m*-, and *p*-Cresols.  
*p*-Cymoquinol.  
 Diamyloxyquinol.

- Phenols. See:—  
 Dianthranol.  
 Diazophenol hydrosulphide.  
 Dibenzoyloxyquinol.  
 Dihydrore-orcinol.  
 Dihydroxyacetophenone.  
 1 : 2-Dihydroxyphenyl-*p*-phenylsulphone.  
 1 : 4-Dihydroxyphenylsulphone.  
*o*-Dimethoxybenzene.  
 Dimethylapionol.  
 Dimethylnaphthol.  
 Dimethylnaphthol, oxy-.  
 Dimethylcyclopentanol.  
 Diphenylhydroxyacetophenone.  
 Diphenylsulphone-*o*-aminophenol.  
 Duroquinol.  
*p*-Ethylresol.  
 Eugenol and *iso*-Eugenol.  
 Euxanthone.  
 Guaiacol.  
 Hexahydroxybenzene.  
 Homopyrocatechol.  
*o*-Hydroxybenzophenone (benzoyl-phenol).  
 Hydroxyhexahydrotoluene.  
 Indophenol.  
 Menthol.  
 $\omega$ -Methoxy-1 : 3 : 4-xylenol.  
 3 : 5-Methylisobutylphenol.  
 1-Methylcyclohexanol.  
 Methylcyclohexenol.  
 3 : 5-Methyl-5-hexylphenol.  
 $\alpha$ -Naphthol and  $\beta$ -naphthol.  
 Orcinol.  
 Phenol.  
 Phenyldihydrocarbostyryl.  
 Phloroglucinol.  
 Pinol ?  
*m*-Propylphenol and *iso*-propylphenol.  
*iso*-Propylquinol.  
 Pyrogallol.  
 Pyrocatechol (catechol).  
 Pyrogallol.  
 Quinonedinaphthylhemiacetal.  
 Resorcinol.  
 Saligenin.  
 Sobrerol.  
 Thymol.  
 Thymoquinonequinolhemiacetal.  
 Trihydroxyphenylsulphone.  
 Triresorcinol.  
 Veratrole.  
 1 : 3 : 4-Xylenol.  
 Phenomalic acid. See Acetylacrylic acid.  
 Phenosafranine (FISCHER and HEPP), A., i, 50.  
 Phenoxazonecarboxylic acid, amino-, and its salts (DIEFOLDER), A., i, 615.  
*o*-Phenoxybenzoic acid, calcium salt, distillation of (JEITELES), A., i, 434.  
*p*-Phenoxybenzoic acid, *p*-amino-, and its salts (HAUSSERMANN and BAUER), A., i, 676.  
*p*-nitro-, and its salts (HAUSSERMANN and BAUER), A., i, 676.  
 4' : 1'-Phenoxybenzylphthalazone (BROMBERG), A., i, 579.  
 $\alpha$ -Phenoxybutyramide (LUCHMANN), A., i, 544.  
 $\alpha$ -Phenoxybutyric acid and its ethylic and metallic salts (LUCHMANN), A., i, 544.  
 $\alpha$ -Phenoxybutyric chloride (LUCHMANN), A., i, 544.  
 $\gamma$ -Phenoxybutyric acid ( $\gamma$ -phenoxyethylacetic acid) (BENTLEY, HAWORTH, and PERKIN), T., 168; P., 1896, 35.  
 action of hydrobromic acid on (BENTLEY, HAWORTH, and PERKIN), T., 168; P., 1896, 36.  
 $\alpha$ -Phenoxybutyronitrile (LUCHMANN), A., i, 544.  
 $\alpha$ -Phenoxybutyrolthiamide (LUCHMANN), A., i, 544.  
 $\gamma$ -Phenoxyethylacetic acid. See  $\gamma$ -Phenoxybutyric acid.  
 Phenoxyethylic alcohol. See Glycol monophenylic ether.  
 Phenoxyethylic bromide, action of ethylic sodiodimethylpropanetricarboxylate on (PERKIN), T., 1500; P., 1896, 170.  
 action of ethylic sodioisopropylpropanetricarboxylate on (PERKIN), T., 1504; P., 1896, 170.  
 Phenoxyethylic ethylic ether (PERKIN), T., 1501, 1503.  
 $\gamma$ -Phenoxyethylmalonic acid (BENTLEY, HAWORTH, and PERKIN), T., 167; P., 1896, 35.  
 action of heat on (BENTLEY, HAWORTH, and PERKIN), T., 168; P., 1896, 35.  
 $\gamma$ -Phenoxyethyl- $\alpha$ -methylacetic acid. See Phenoxyvaleric acid.  
 $\gamma$ -Phenoxyethyl- $\alpha$ -methylacetoacetic acid, ethylic salt, and its hydrolysis (BENTLEY, HAWORTH, and PERKIN), T., 173.  
 $\gamma$ -Phenoxyethyl- $\alpha$ -methylmalonic acid (BENTLEY, HAWORTH, and PERKIN), T., 171; P., 1896, 36.  
 action of heat on (BENTLEY, HAWORTH, and PERKIN), T., 172; P., 1896, 36.  
 ethylic salt (BENTLEY, HAWORTH, and PERKIN), T., 171; P., 1896, 36.  
 $\alpha$ -Phenoxyisooctane- $\gamma\gamma\delta$ -tricarboxylic

- acid (*phenoxyethylisopropylpropanetricarboxylic acid*), and the action of heat on it (PERKIN), T., 1504, 1505.
- Phenoxyethylisopropylglutaric acid (PERKIN), T., 1505.
- Phenoxyethylisopropylpropanetricarboxylic acid. See  $\alpha$ -Phenoxyisooctanecarboxylic acid.
- $\gamma$ -Phenoxypropylpiperidine and its salts (GABRIEL and STELZNER), A., i, 703.
- 1': 3'-Phenoxypropylisoquinoline and its salts (ALBAHARY), A., i, 699.
- Phenoxyvaleric acid:  $\delta$ -phenoxy- $\alpha$ -methylbutyric acid ( $\gamma$ -phenoxyethyl- $\alpha$ -methylacetic acid) (BENTLEY, HAWORTH, and PERKIN), T., 172, 173; P., 1896, 36.
- action of mineral acids on (BENTLEY, HAWORTH, and PERKIN), T., 173; P., 1896, 36.
- Phenyl *o*-acetoxystyryl ketone dibromide (BABLICH and KOSTANECKI), A., i, 239.
- Phenyl *m*-acetoxystyryl ketone (BABLICH and KOSTANECKI), A., i, 239.
- Phenyl *p*-acetoxystyryl ketone (BABLICH and KOSTANECKI), A., i, 239.
- Phenyl allyl oxide, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1141, 1225, 1247.
- Phenyl benzyl ketone (*deoxybenzoin*) (CURTIUS), A., i, 339.
- sodium derivative, molecular weight of (BECKMANN and SCHLIEBS), A., i, 124.
- Phenyl 2:5-bromohydroxystyryl ketone and its sodium salt, acetyl derivatives, and dibromide (KOSTANECKI and OPPELT), A., i, 241.
- Phenyl 5-bromo-2-hydroxystyryl ketone (2-hydroxybenzylideneacetophenone, 5-bromo-) (KOSTANECKI and SCHNEIDER), A., i, 614.
- Phenyl isobutyl oxide, magnetic rotatory power, &c., of (PERKIN), T., 1080, 1081, 1186, 1240.
- Phenyl  $\alpha$ -coumaryl ketone (KOSTANECKI), A., i, 240.
- o*-bromo- (KOSTANECKI and OPPELT), A., i, 241.
- Phenyl cymyl ketone (*cymophenone*), preparation of (BOUVEAULT), A., i, 616.
- Phenyl 2:4-diethoxystyryl ketone (2:4-diethoxybenzylideneacetophenone) (KESSELKAUL and KOSTANECKI), A., i, 607.
- Phenyl *m*-ethoxystyryl ketone (3-ethoxybenzylideneacetophenone) (KOSTANECKI and OPPELT), A., i, 241; (KOSTANECKI and SCHNEIDER), A., i, 614.
- Phenyl *p*-ethoxystyryl ketone (4-ethoxybenzylideneacetophenone) (KOSTANECKI and SCHNEIDER), A., i, 614.
- Phenyl ethyl ketone, magnetic rotatory power, &c., of (PERKIN), T., 1091, 1093, 1201, 1243.
- Phenyl *o*-hydroxystyryl ketone, preparation of, and its benzoyl derivative (HARRIES and BUSSE), A., i, 302.
- and its sodium salt and acetyl derivative (BABLICH and KOSTANECKI), A., i, 239.
- phenylhydrazone (HARRIES and BUSSE), A., i, 302.
- Phenyl *o*-hydroxystyryl ketone, tetrabromo- (HARRIES and BUSSE), A., i, 302.
- Phenyl *m*-hydroxystyryl ketone and its dibromide and acetyl derivatives (BABLICH and V. KOSTANECKI), A., i, 239.
- Phenyl *p*-hydroxystyryl ketone and its dibromide and acetyl derivatives (BABLICH and V. KOSTANECKI), A., i, 239.
- Phenyl octyl oxide, magnetic rotatory power, &c., of (PERKIN), T., 1080, 1081, 1186, 1240.
- Phenyl propyl oxide, magnetic rotatory power, &c., of (PERKIN), T., 1080, 1081, 1186, 1240.
- Phenyl *iso*-propyl oxide, magnetic rotatory power, &c., of (PERKIN), T., 1080, 1081, 1186, 1240.
- Phenyl styryl ketone (v. KOSTANECKI and ROSSBACH), A., i, 556.
- $\alpha\beta$ -dichloride (GOLDSCHMIDT), A., i, 189.
- condensation of, with acetophenone (v. KOSTANECKI and TAMBOR), A., i, 557.
- Phenyl styryl ketone, *o*-amino-, and its acetyl derivative and bromo-derivative (ENGLER and DORANT), A., i, 49.
- hydrazone of (ENGLER and DORANT), A., i, 49.
- o*-nitro-, and its hydrazone (ENGLER and DORANT), A., i, 49.
- Phenyl *p*-tolyl ketone, *m*-amino-: its salts and acetyl derivative (LIMPRICHT and LENZ), A., i, 41.
- p*-amino-, diamino-, triamino- (LIMPRICHT and SAMIETZ), A., i, 42.
- bromo- (LIMPRICHT and SAMIETZ), A., i, 42.
- bromonitro- (LIMPRICHT and LENZ), A., i, 40.

- Phenyl *p*-tolyl ketone, chloronitro- (LIMPRICHT and LENZ), A., i, 40.  
*m*-nitro-, and its dichloride (LIMPRICHT and LENZ), A., i, 40.  
*p*-nitro- (LIMPRICHT and SAMIETZ), A., i, 42.  
*d*initro- (LIMPRICHT and LENZ), A., i, 41; (LIMPRICHT and SAMIETZ), A., i, 42.  
*tr*initro- (LIMPRICHT and LENZ), A., i, 41; (LIMPRICHT and SAMIETZ), A., i, 42.
- Phenyl *p*-tolyl ketone-phenylhydrazone, *p*-amino- (LIMPRICHT and SAMIETZ), A., i, 42.  
*p*-nitro- (LIMPRICHT and SAMIETZ), A., i, 42.
- Phenyl tolyl ketones, preparation of (COMSTOCK), A., i, 613.
- Phenyl *p*-tolyl ketone-sulphonic acid (LIMPRICHT and LENZ), A., i, 41.  
*m*-nitro- (LIMPRICHT and LENZ), A., i, 40.
- Phenyl *p*-tolyl ketoxime, *m*-amino- (LIMPRICHT and LENZ), A., i, 41.  
*p*-nitro- (LIMPRICHT and SAMIETZ), A., i, 42.  
*d*initro- (LIMPRICHT and LENZ), A., i, 41.
- Phenyl *p*-tolyl phenylene diketone, *m*-nitro- (LIMPRICHT and LENZ), A., i, 41.  
*p*-nitro- (LIMPRICHT and SAMIETZ), A., i, 42.
- Phenyl *o*-xylyl ketone, *m*-amino-, and salts (LIMPRICHT and FALKENBERG), A., i, 43.  
*m*-nitro- (LIMPRICHT and FALKENBERG), A., i, 43.
- Phenyl *m*-xylyl ketone, *m*-amino-, and salts (LIMPRICHT and FALKENBERG), A., i, 43.  
azoxy- (LIMPRICHT and FALKENBERG), A., i, 43.  
*m*-nitro- (LIMPRICHT and FALKENBERG), A., i, 43.  
*tr*initro- (LIMPRICHT and FALKENBERG), A., i, 43.
- Phenyl *p*-xylyl ketone, *m*-amino-, and salts (LIMPRICHT and FALKENBERG), A., i, 43.  
*m*-nitro- (LIMPRICHT and FALKENBERG), A., i, 43.
- Phenyl *m*-xylyl ketone-sulphonic acid, *m*-nitro- (LIMPRICHT and FALKENBERG), A., i, 43.
- Phenyl *m*-xylyl ketoxime, *m*-nitro- (LIMPRICHT and FALKENBERG), A., i, 43.
- Phenylacetamide, from phenacetylthio- carbimide and ammonia (DIXON), T., 863.
- Phenylacetamide, magnetic rotatory power, &c., of (PERKIN), T., 1114, 1216, 1246.
- $\psi$ -Phenylacetamide (BUCHNER), A., i, 230.
- Phenylacetic acid ( *$\alpha$ -toluic acid*), magnetic rotatory power and relative density of (PERKIN), T., 1079, 1094, 1175, 1238.  
heat of combustion of (STOHMANN and SCHMIDT), A., ii, 469.  
catalytic action of picric acid on, the rate of etherification of (GOLD-SCHMIDT), A., ii, 638.  
action of phosphorus pentachloride on (DIXON), T., 865.  
ethylic salt, magnetic rotatory power, &c., of (PERKIN), T., 1077, 1175, 1238.
- Phenylacetic acid, 2 : 4 : 6-*tr*initro- (JACKSON and PHINNEY), A., i, 234.
- Phenylacetic chloride (DIXON), T., 865; P., 1896, 100.  
magnetic rotatory power, &c., of (PERKIN), T., 1122, 1205, 1244.  
action of lead thiocyanate on (DIXON), T., 865; P., 1896, 100.  
condensation of, with ethylic sodio-malonate (SCHOTT), A., i, 700.
- Phenylacetic peroxide (VANINO and THIELE), A., i, 597.
- $\psi$ -Phenylacetic acid, sodium salt of (BUCHNER), A., i, 230.
- tribromide of (BUCHNER), A., i, 230.
- Phenylacetone. See Benzyl methyl ketone.
- Phenylacetoneitrile ( *$\alpha$ -toluonitrile*, *benzylic cyanide*), occurrence of (HOFMANN LECTURE), T., 719.  
magnetic rotatory power, &c., of (PERKIN), T., 1097, 1206, 1244.
- Phenylacetonylsemicarbazide (CURTIUS and HOFMANN), A., i, 648.
- Phenylacetoxime. See Benzyl methyl ketone, oxime of.
- Phenylacetylsemicarbazide (CURTIUS and HOFMANN), A., i, 648.
- n*-Phenylacetyl-*p*-phenylbenzylthiourea (DIXON), T., 868; P., 1896, 101.
- ab*-Phenylacetylphenylthiocarbamide, and the action of silver nitrate on (DIXON), T., 866; P., 1896, 101.
- ab*-Phenylacetylphenylurea (DIXON), T., 866; P., 1896, 101.
- Phenylacetylthiocarbinde, and the action of ammonia, aniline, benzyl-aniline, and *o*- and *p*-toluidine on

- (DIXON), T. 865—868; P., 1896, 101.
- Phenylacetylthiocarbimide, action of water on (DIXON), T., 865.
- ab*-Phenylacetyl-*o*-tolylthiocarbimide, and the action of silver nitrate on (DIXON), T., 866, 867; P., 1896, 101.
- ab*-Phenylacetyl-*p*-tolylthiocarbimide, and the action of silver nitrate on (DIXON), T., 867; P., 1896, 101.
- Phenylacetyl-*o*-tolylurea (DIXON), T., 867; P., 1896, 101.
- ab*-Phenylacetyl-*p*-tolylurea (DIXON), T., 868; P., 1896, 101.
- Phenylacetylene, action of water on (DESGREZ), A., i, 2.
- Phenylacridine, diamino-. See Chrys-aniline.
- $\beta$ -Phenylacrylic acid See Cinnamic acid.
- Phenylallylthiocarbimide, action of bromine on (DIXON), T., 852; P., 1896, 99.
- Phenylaminoacetohydrazide (RADENHAUSEN), A., i, 138.
- Phenylamine. See Aniline
- Phenylamino-. See Anilino-.
- Phenyl-4-amino-1 : 2-azimidobenzene : its platinumchloride and acetyl derivative (NIETZKI and ALMENRÄDER), A., i, 164.
- Phenyl-*o*-aminobenzylhydrazine, *o*-amino-, condensation of, with formaldehyde (BUSCH), A., i, 508.
- p*-bromo-, and its oxalate (BUSCH and HEINEN), A., i, 159.
- p*-chloro- (BUSCH and VOLKENING), A., i, 159.
- Phenyl-*o*-aminobenzylidenehydrazone (WALTHER), A., i, 543.
- Phenyl-*m*-aminobenzylidenehydrazone (WALTHER), A., i, 543.
- Phenyl-*p*-aminobenzylidenehydrazone (WALTHER), A., i, 543.
- $\alpha$ -Phenyl-*o*-aminocinnamic acid and its salts (PSCHORR), A., i, 303.
- $\alpha$ -Phenyl-*o*-amino- $\beta$ -phenylpropionic acid (PSCHORR), A., i, 303.
- Phenyl-*p*-aminotolylsulphone and its acetyl derivative (HINSBERG and HIMMELSCHNEIN), A., i, 685.
- Phenyl-1 : 2-azimidobenzene, 4-amino-, and its acetyl derivative (NIETZKI and BAUR), A., i, 165.
- 4-nitro- (NIETZKI and BAUR), A., i, 165.
- Phenylazocarbonanilide (BUSCH and BECKER), A., i, 581.
- Phenylazocarboxylamide and its potassium derivative (THIELE), A., i, 94.
- Phenylazocarboxylic acid, potassium salt (THIELE), A., i, 94.
- Phenylazimidide (CURTIUS), A., i, 340.
- magnetic rotatory power, &c., of (PERKIN), T., 1098, 1154, 1209, 1232, 1245.
- reduction of (CURTIUS), A., i, 35.
- Phenylbenzoic acid. See Diphenylcarboxylic acid.
- Phenylbenzoin, ethylic ether of (BILTZ), A., i, 690.
- Phenylbenzoylbenzylene (CURTIUS), A., i, 339.
- Phenylbenzoylsemicarbazide (CURTIUS and HOFMANN), A., i, 647.
- m*-nitro- (CURTIUS and HOFMANN), A., i, 648.
- Phenylbenzylcarboxyethylthiourea (DORAN), T., 332; P., 1896, 75.
- Phenylbenzylethylamine and its hydriodide, hydrochloride, and sulphate (FISCHER), A., i, 262.
- Phenylbenzylhydroxyethylamine and its hydrochloride and nitramine (FISCHER), A., i, 262.
- Phenylbenzylidenehydrazone, benzoyl derivative (WALTHER), A., i, 543.
- p*-nitro-, and its acetyl and benzoyl derivatives (WALTHER), A., i, 542.
- Phenylbenzylidenemethylhydrazine (GOLDSTEIN), A., i, 436.
- behaviour of, towards *p*-nitroisodiazobenzene hydroxide (BAMBERGER), A., i, 540.
- 1 : 3 : 5-Phenylbenzylpyrazolone-4-carboxylic acid, ethylic salt of (SCHOTT), A., i, 700.
- Phenylbromacetic acid, rotatory power of (WALDEN), A., ii, 138.
- ethylic salt of, action of finely divided silver on (HELL and WEINZWEIG), A., i, 45.
- methylic, ethylic, and isobutylic salts, rotatory power of (WALDEN), A., ii, 138.
- Phenylbromacetic bromide, rotatory power of (WALDEN), A., ii, 138.
- Phenylbromomalononic acid, bromodinitro-, ethylic salt of (JACKSON and SOCH), A., i, 371.
- tr*initro-, ethylic salt of (JACKSON and SOCH), A., i, 371.
- Phenylbutylene (iso-butenylbenzene), magnetic rotatory power, &c., of (PERKIN), T., 1143, 1224, 1229, 1246.
- n*-Phenylbutylene- $\psi$ -thiocarbamide and its picrate (LUCHMANN), A., i, 545.
- Phenylisobutylidenehydrazine, behaviour of, towards alcoholic zinc chloride (BRUNNER), A., i, 169.

- Phenylbutyric acid (FITTING, WOLFF, and SHIELDS), A., i, 170.
- Phenylcarbamazoinide (CURTIUS and HOFMANN), A., i, 648.
- Phenylcarbamine, preparation of (COHEN and ARCHDEACON), T., 92 ; (HOFMANN LECTURE), T., 652.
- Phenylcarbamide, *o*-cyano- (PINNOW and SAMANN), A., i, 366.
- Phenylcarbimide (*phenylic isocyanate*), discovery of (HOFMANN LECTURE), T., 653.
- preparation of (HOFMANN LECTURE), T., 710, 714.
- properties of (HOFMANN LECTURE), T., 654.
- Phenylcarboxyethylsemithiocarbazide (DORAN), T., 333 ; P., 1896, 75.
- ab*-Phenylcarboxyethylthiocarbamide (DORAN), T., 326 ; P., 1896, 74.
- Phenylcarboxyethylthiourea, probable non-existence of (DORAN), T., 341, 344 ; P., 1896, 75.
- Phenylchloroacetic acid, rotatory power of (WALDEN), A., ii, 138.
- methylic, ethylic, propylic, and amylic salts, rotatory power of (WALDEN), A., ii, 138.
- Phenylchloroacetic acid, dextro- and inactive, rotatory powers of the lævo- and inactive amylic salts of (WALDEN), A., ii, 139.
- Phenylchloroacetic chloride, rotatory power of (WALDEN), A., ii, 138.
- Phenylchloramine, supposed formation of (LÖB), A., i, 605.
- Phenyl- $\beta$ -chloroethylcarbamide (GABRIEL and STELZNER), A., i, 122.
- 2 : 6-Phenylchloropyridine and its aurochloride (LEBEN), A., i, 574.
- Phenylcoumalin and its picric acid and salicylic acid derivatives (LEBEN), A., i, 574.
- melting point of (HESSE), A., i, 60.
- Phenylcoumalindianiline (LEBEN), A., i, 575.
- o*-Phenylcoumaroketone. See Phenyl *o*-hydroxystyryl ketone.
- Phenylisocrotyl (?) thiocarbamide (LÜCHMANN), A., i, 546.
- Phenyldiazosulphonic acid, *p*-nitro-, potassium salt (BAMBERGER and KRAUS), A., i, 610.
- Phenyl-*p*-diazotolylsulphone (HINSBERG and HIMMELSCHNEID), A., i, 685.
- 5-Phenyl-2 : 6-dibenzyl-*m*-diazine, 4-amino-, and its condensation with acetic chloride (HERFELDT), A., i, 393.
- bromo-4-amino- (HERFELDT), A., i, 393.
- chloro-4-amino-, and its hydrochloride, methiodide, and methyl derivative (HERFELDT), A., i, 393.
- Phenyldiethylhydrazine, formyl derivative (FREER and SHERMAN), A., i, 612.
- Phenyldihydrocoumaralcohol. See Phenyl-*o*-hydroxybenzylcarbinol.
- Phenyldihydrofurfurantricarboxylic acid, triethylic salt, action of ammonia and of potassium hydroxide on (RUHEMANN and WOLFF), T., 1384 ; P., 1896, 166.
- 3'-Phenyldihydro- $\beta$ -phenotriazine, *p*-bromo-, and its salts (BUSCH and HEINEN), A., i, 159.
- m*-chloro- (BUSCH and FRANCIS), A., i, 158.
- p*-chloro-, and its salts (BUSCH and VOLKENING), A., i, 158.
- $\beta$ -Phenyldihydrocarbostyryl (PSCHORR), A., i, 303.
- 4'-Phenyldihydroquinazoline and its hydrochloride, picrate, and nitroso-derivatives (GABRIEL and STELZNER), A., i, 507.
- 2'-bromo-, hydrobromide of (GABRIEL and STELZNER), A., i, 506.
- Phenyldimethylamine, preparation of (HOFMANN LECTURE), T., 670.
- Phenyldimethylcoumalinquinol (LEBEN), A., i, 574.
- Phenyldimethylpyrazolone. See Antipyrine.
- Phenyldithienylmethane, *o*-, *m*-, and *p*-nitro- (TÖHL and NÄHKE), A., i, 690.
- 5-Phenyl-3 : 4-dithiobiazolone, 2-amino-phenyl sulphide and its salt- (BUSCH), A., i, 706.
- 2-aminotolyl sulphide (BUSCH), A., i, 706.
- 2-ethylaminophenyl sulphide and its salts (BUSCH), A., i, 707.
- aniline and tripropylamine derivative of (BUSCH), A., i, 706.
- 2-hydrosulphide, dimethylamine and trimethylamine derivatives of (BUSCH), A., i, 706.
- 2-phenyl sulphide (BUSCH), A., i, 706.
- 2-tetrasulphide (BUSCH), A., i, 705.
- 5-Phenyl-3 : 4-dithiobiazolone-2-benzylidenesulphime (BUSCH), A., i, 705.
- 5-Phenyl-3 : 4-dithiobiazolone-2-cinnamylidenesulphime (BUSCH), A., i, 706.
- 5-Phenyl-3 : 4-dithiobiazolone-2-dimethylhydrosulphamine (BUSCH), A., i, 706.
- 5-Phenyl-3 : 4-dithiobiazolone-2-hydrosulphamine (BUSCH), A., i, 705.



- 5-Phenyl-3 : 4-dithiobiazolone-2-ethyl-hydrosulphamine (BUSCH), A., i, 706.
- 5-Phenyl-3 : 4-dithiobiazolone-2-methylhydrosulphamine (BUSCH), A., i, 706.
- Phenylisodithiobiazolone (BUSCH), A., i, 190.
- Phenyl-di-*o*-tolylguanidine : its hydrochloride, nitrate, and platinochloride, and behaviour towards carbon bisulphide (MARCKWALD), A., i, 30.
- Phenyleneaceticpropionic acid and its salts (EINHORN and LUMSDEN), A., i, 45.
- nitro-, and its salts (EINHORN and LUMSDEN), A., i, 46.
- p*-Phenylenecarbamide (CURTIUS and DAVIDIS), A., i, 681.
- o*-Phenylenediamine, preparation of (HINSBERG and KÖNIG), A., i, 165.
- magnetic rotatory power, &c., of (PERKIN), T., 1104, 1109, 1131, 1214, 1245.
- hydrochloride, magnetic rotatory power, &c., of (PERKIN), T., 1112, 1132, 1223, 1246.
- condensation of, with acetyl isatin (SCHUNCK and MARCHLEWSKI), A., i, 235.
- condensation of, with dihydroxytoluquinone (KEHRMANN and FUHNER), A., i, 512.
- condensation of, with isatin and with *m*-chlorisatin (SCHUNCKE and MARCHLEWSKI), A., i, 96.
- m*-Phenylenediamine, discovery of (HOFMANN LECTURE), T., 688.
- magnetic rotatory power, &c., of (PERKIN), T., 1109, 1131, 1155, 1214, 1232, 1245.
- hydrochloride, magnetic rotatory power, &c., of (PERKIN), T., 1112, 1132, 1223, 1246.
- m*-Phenylenediamine, bromo-, and its hydrobromide (JACKSON and CALVERT), A., i, 538.
- dibromo-, and its salts and acetyl derivative (JACKSON and CALVERT), A., i, 538.
- tribromo- : its hydrochloride and diacetyl derivative (JACKSON and CALVERT), A., i, 538.
- tetrabromo- (JACKSON and CALVERT), A., i, 539.
- p*-Phenylenediamine, preparation of (HOFMANN LECTURE), T., 689.
- hydrochloride, magnetic rotatory powers, &c., of (PERKIN), T., 1112, 1132, 1223, 1246.
- p*-Phenylenedimethyldiamine, magnetic rotatory power, &c., of (PERKIN), T., 1109, 1215, 1246.
- Phenylenediurethane, tribromo- (JACKSON and CALVERT), A., i, 538.
- Phenylene-ethylenediamine (HINSBERG and STRUPLER), A., i, 47.
- dinitroso- (HINSBERG and STRUPLER), A., i, 48.
- m*-Phenylene-ethylurethane (CURTIUS and DAVIDIS), A., i, 681.
- p*-Phenylene-ethylurethane (CURTIUS and DAVIDIS), A., i, 681.
- Phenylenemethyldiamine. See Methyl-aniline, amino-.
- Phenylethanetricarboxylic acid, ethylic salt, velocity of hydrolysis of (HEBELT), A., i, 600.
- o*-Phenyl- $\gamma$ -ethoxybutylthiocarbamide (LUCHMANN), A., i, 545.
- Phenyl-6-ethoxy-1 : 3 : 4-tolylene-diamine : its hydrochloride, azimide, thiocarbonyl compound, stilbazonium base, and methenyl derivative, with its nitrate and hydrochloride (JACOBSEN, FERTSCH, MARSDEN, and SCHKOLNIK), A., i, 24.
- Phenylethylenecamine. See Diphenyl-diethylenediamine.
- Phenylethylenecarbamide (GABRIEL and STELZNER), A., i, 122.
- n*-Phenylethylene- $\psi$ -carbamide (GABRIEL and STELZNER), A., i, 122.
- Phenylethylenediamine : its acetyl derivative, thiocarbamate, and its condensation with benzile (FEIST and ARNSTEIN), A., i, 258.
- diacetyl and dibenzoyl compounds of (FEIST and ARNSTEIN), A., i, 259.
- Phenylethylenethiocarbamide (FEIST and ARNSTEIN), A., i, 258.
- n*-Phenylethylene- $\psi$ -thiocarbamide (GABRIEL and STELZNER), A., i, 122.
- Phenylethyl nitromethane, labile form of (KONOWALOFF), A., i, 676.
- $\mu\beta$ -Phenylethyl oxazoline (BOOKMAN), A., i, 200.
- Phenylfluoravinesulphone (HINSBERG and POLLAK), A., i, 394.
- Phenylfluoridine, preparation of (FISCHER and HEPP), A., i, 324, 539.
- hydrochloride (FISCHER and HEPP), A., i, 324.
- Phenylglycinylphenylsemicarbazide (WIDMAN), A., i, 629.
- Phenylglycolic acid. See Mandelic acid.
- Phenylglyoxylbenzamide (FISCHER), A., i, 262.
- Phenylglyoxyethoxybenzylamine (MINOVICI), A., i, 705.
- Phenylglyoxylmethoxybenzamide. See Methoxybenzoic acid, phenylglyoxylamide of.

- Phenylglyoxylmethoxybenzylamine (MINOVICI), A., i, 705.
- Phenylhexahydroresorcinol. See 1 : 3 : 5-Dihydroxyphenyleyclohexane.
- $\beta$ -Phenylhydracrylic acid,  $\alpha$ -iodo- (ERLENMEYER), A., i, 302.
- Phenylhydrazine, magnetic rotatory power, &c., of (PERKIN), T., 1104, 1209, 1245.
- oxidation of (WALTER), A., i, 472.
- reduction by means of (WALTHER), A., i, 542.
- action of sulphur nitride on (SCHENCK), A., i, 427.
- behaviour of, towards chloracetamide and phenylhydrazinoacetamide (RUPE and HEBERLEIN), A., i, 363.
- Phenylhydrazine, hydride, hydrofluoride, and double salts of (GRIMALDI), A., i, 220.
- citrate and *d*-tartrate of (DE VRIES), A., i, 94.
- hydrogen tartrate aldehydates (CAUSSE), A., i, 611.
- salts of (CAUSSE), A., i, 479.
- benzoyl and sodiodibenzoyl derivatives (FREER and SHERMAN), A., i, 612.
- formyl, sodioformyl,  $\beta$ -formyl- $\alpha$ -ethyl, and  $\alpha$ -formyl- $\beta$ -ethyl derivatives (FREER and SHERMAN), A., i, 611.
- $\beta$ -lactyl derivative of (DE VRIES), A., i, 94.
- Phenylhydrazine, estimation of (DENIGES), A., ii, 387.
- Phenylhydrazine, dicyano- (ANDREOCCI), A., i, 221.
- p*-nitro-, from diazobenzenemercaptan hydrosulphide (BAMBERGER and KRAUS), A., i, 219.
- from *iso-p*-nitrodiazobenzene hydroxide (BAMBERGER and KRAUS), A., i, 220.
- hydrochloride (BAMBERGER and KRAUS), A., i, 610.
- 2 : 4-dinitro- (CURTIS), A., i, 339.
- Phenylhydrazinedisulphonic acid, *p*-nitro-, dipotassium and tripotassium salts (BAMBERGER and KRAUS), A., i, 610.
- Phenylhydrazinoacetamide, asymmetric, benzylidene compound (RUPE and HEBERLEIN), A., i, 363.
- Phenylhydrazinoacetanilide, asymmetric, behaviour of, towards sulphuric acid (RUPE and HEBERLEIN), A., i, 363.
- Phenylhydrazinoacetophenylhydrazide, asymmetric benzylidene compound (RUPE and HEBERLEIN), A., i, 363.
- Phenylhydrazinoformic acid, ethylic salt, and its benzylidene derivative (RUPE), A., i, 429.
- as*- $\beta$ -Phenylhydrazinopropionic acid, ethylic salt of, and its picrate, oxalate, semicarbazide, and phenylthiosemicarbazide (HARRIES and LOTH), A., i, 321.
- Phenylhydrazonemesoxalonitrile (SCHMIDTMANN), A., i, 459.
- Phenylhydrazonemethanedisulphonic acid, potassium salt (VON RECHMANN), A., i, 679.
- Phenyl-*o*-hydroxybenzylcarbinol (HARRIES and BUSSÉ), A., i, 302.
- Phenylhydroxyethylamine, three isomerides (ERLENMEYER), A., i, 305.
- Phenylhydroxylamine, behaviour of, towards phenylhydrazine (WALTHER), A., i, 542.
- nitroso- (ANGEI), A., i, 613.
- $\beta$ -Phenylhydroxylamine, preparation of (WILCENUS), A., i, 672.
- Phenylhydroxylaminoacetic acid (TRAUBE), A., i, 9.
- Phenylhydroxyloxamide and its acetyl derivative (SCHIFF and MONSACCHI), A., i, 209.
- Phenylalcohol. See Phenol.
- bisulphide, from *anti-p*-chlorodiazobenzenethiophenyl ether (HANTZSCH and FRESE), A., i, 217.
- p*-dinitro-, from *di-p*-nitrodiazobenzene sulphide and benzene (BAMBERGER and KRAUS), A., i, 219.
- $\beta$ -bromethylic ether (BENTLEY, HAWORTH, and PERKIN), T., 165, 166.
- $\gamma$ -bromopropylic ether (SOLONINA), A., i, 476.
- chloride, *isocyno*-, discovery of (HOFMANN LECTURE), T, 712.
- $\beta$ -chloroethylic ether (BENTLEY, HAWORTH, and PERKIN), T., 165.
- isocyanate*. See Phenylcarbimide.
- ether, preparation of (JEITELES), A., i, 435.
- o*-amino-, preparation of, and its hydrochloride (ULLMANN), A., i, 605.
- p*-amino-, and its acetyl derivative (HAEUSSERMANN and TEICHMANN), A., i, 533.
- 2 : 4'-diamino-, and its dihydrochloride (HAEUSSERMANN and BAUER), A., i, 676.
- 4 : 4'-diamino-, and its hydrochloride (HAEUSSERMANN and TEICHMANN), A., i, 533.
- o*-nitro- (HAEUSSERMANN and TEICHMANN), A., i, 533.

- Phenylic ether, *p*-nitro- (HAEUSSERMANN and TEICHMANN), A., i, 533.
- 2 : 2'-*d*-nitro- (HAEUSSERMANN and BAUER), A., i, 676
- 2 : 4'-*d*-nitro- (HAEUSSERMANN and TEICHMANN), A., i, 534; (HAEUSSERMANN and BAUER), A., i, 676.
- 4 : 4'-*d*-nitro- (HAEUSSERMANN and TEICHMANN), A., i, 533.
- $\beta$ -ethoxyethyl ether (BENTLEY, HAWORTH, and PERKIN), T., 171.
- ethyl ether, 3 : 5-dibromo-, preparation of (JACKSON and CALVERT), A., i, 473.
- hydrate. See Phenol.
- iodochloride, action of zinc ethyl on (LACHMANN), A., i, 460.
- mercaptan (*thiophenol*) (VOSWINKEL), A., i, 378.
- condensation of, with benzil and with quinone (TROEGER and EGGERT), A., i, 562.
- o*-amino-, preparation of (HOFMANN LECTURE), T., 712, 713.
- compound obtained from, by action of cyanogen (HOFMANN LECTURE), T., 713.
- mesitylic sulphide (BOURGEOIS), A., i, 18.
- selenide, synthesis of (KRAFFT and KASCHAU), A., i, 296.
- sulphide, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1124, 1204, 1243.
- p*-chloro-, from *anti-p*-chlorodiazobenzenethiophenyl ether (HANTZSCH and FRESE), A., i, 217.
- m*-tolyl sulphide (BOURGEOIS), A., i, 17.
- p*-tolyl sulphide (BOURGEOIS), A., i, 17.
- o*-xylylic sulphide [ $\text{Me}_2 : \text{S} = 1 : 2 : 4$ ] (BOURGEOIS), A., i, 17.
- m*-xylylic sulphide [ $\text{Me}_2 : \text{S} = 1 : 3 : 4$ ] (BOURGEOIS), A., i, 17.
- p*-xylylic sulphide (BOURGEOIS), A., i, 18.
- Phenylimido- $\beta$ -butyric acid, *o*-amino-, ethylic and methylic salts of (HINSBERG and KOLLER), A., i, 537.
- 2'-Phenylindazole, *m*-chloro- (BUSCH and FRANCIS), A., i, 158.
- 3'-Phenylindazole and its mercuric and silver derivatives and salts (AUWERS and SONDHEIMER), A., i, 505.
- 2'-acetyl derivative and nitroso-derivative (AUWERS and SONDHEIMER), A., i, 505.
- 3'-Phenylisindazole, 1'-acetyl derivative of, and its acetate (AUWERS and EWING), A., i, 504.
- Phenylindoxazine, action of fuming hydriodic acid on (COHN), A., i, 440.
- Phenylinduline, constitution of (FISCHER and HEPP), A., i, 51.
- amino- and its hydrochloride, nitrate, and diazo-derivative (FISCHER and HEPP), A., i, 324.
- 4'-Phenyl-2'-ketodihydroquinazoline. See 4'-Phenylquinazoline.
- 3'-Phenylketotetrahydroquinazoline, *p*-bromo- (BUSCH and HEINEN), A., i, 159.
- o*-chloro- (BUSCH and BRUNNER), A., i, 157.
- Phenylmalonic acid, ethylic salt, rate of hydrolysis of (HJELT), A., i, 598.
- tr*-nitro-, ethylic salt, and its sodium derivative (JACKSON and SOCH), A., i, 370.
- $\beta$ -Phenyl- $\mu$ -methoxyphenyloxazole and its salts (MINOVICI), A., i, 703.
- $\mu$ -Phenyl- $\beta$ -methoxyphenyloxazole and its salts (MINOVICI), A., i, 704.
- Phenylmethylaminobenzenylmethyylimine : its hydriodic and picrate (VON PECHMANN), A., i, 32.
- $\mu$ -Phenylmethylaminopenthiiazoline,  $\gamma$ -bromo-, and hydrobromide of (DIXON), T., 29; P., 1895, 217.
- Phenylmethylisocamylcarbamide (STOERMER and VON LEPEL), A., i, 664.
- Phenylmethylisocamylthiocarbamide (STOERMER and VON LEPEL), A., i, 664.
- Phenylmethylisobutylcarbamide (STOERMER and VON LEPEL), A., i, 662.
- Phenylmethylisobutylidenehydrazine (BRUNNER), A., i, 625.
- Phenylmethylisobutylthiocarbamide (STOERMER and VON LEPEL), A., i, 662.
- 1 : 5-Phenylmethylisodithiobiazolone and its compound with methylic iodide (BUSCH), A., i, 190.
- a*-Phenylmethylhydrazine, hydrofluoride (GRIMALDI), A., i, 221.
- as*-Phenylmethylhydrazine, behaviour of, towards formaldehyde (GOLDSCHMIDT), A., i, 543.
- amidosulphonate (PAAL and JÄNICKE), A., i, 235.
- $\beta\beta$ -Phenylmethylhydrazinobenzylmalonic acid, ethylic salt of, and its salts (GOLDSTEIN), A., i, 436.

- Phenylmethylhydrazinosulphamic acid, ammonium salt of (PAAL and JÄNICKE), A, i, 235
- Phenylmethyl-4-ketopyrazolonephenylhydrazine, identity of, with 1:3-phenylmethylpyrazolone-4-azobenzene (AUTENRIETH), A., i, 700.
- 1:3:5-Phenylmethylketotetrahydropyridazine-4-carboxylic acid (RUPE and HEBERLEIN), A., i, 363.
- 2:4-Phenylmethylpentosazoline and its picrate (LUCHMANN), A., i, 545.
- Phenylmethylphenofluorindine and its platinochloride, hydrochloride, and benzoyl derivative (KEHRMANN and BÜRGIN), A., i, 512.
- Phenylmethylpropylamine, nitroso- (STOERMER and VON LEPEL), A., i, 662.
- Phenylmethylpropylcarbamide (STOERMER and VON LEPEL), A., i, 663.
- Phenylmethylpropylthiocarbamide (STOERMER and VON LEPEL), A., i, 662.
- 3:5-Phenylmethylpyrazole, formation of (GOLDSCHMIDT), A., i, 189.
- 1:3-Phenylmethylpyrazolone, 4-oxime of (JOVITSCHITSCH), A., i, 83.
- 1:3-Phenylmethylpyrazolone-4-azobenzene: its mononitro- and dinitro-derivatives (AUTENRIETH), A., i, 627, 700.
- identity of, with Knorr's phenylmethyl-4-ketopyrazolonephenylhydrazine (AUTENRIETH), A., i, 700.
- 1:3:5-Phenylmethylpyrazolone-4-carboxylic acid, ethylic salt of (SCHOTT), A., i, 700.
- 1:5-Phenylmethylthiobiazoline, 3-hydrosulphide, and its potassium salt (BUSCH), A., i, 190.
- bisulphide (BUSCH), A., i, 190.
- Phenylmethylurethane, from methyl-*syn*benzhydroxamic acid (WERNER and SUBAK), A., i, 431.
- ba*-Phenylmethylureidoacetic acid and its ethylic salt (PAAL and GAUSER), A., i, 225.
- Phenyl-naphthalene, *p*-nitro- (KÜHLING), A., i, 237.
- Phenyl- $\beta$ -naphthapyrazine (FEIST and ARNSTEIN), A., i, 258.
- Phenyl-*m*-nitro-*o*-aminobenzazoinide (KRATZ), A., i, 365.
- Phenyl-*m*-nitrobenzoysemicarbazide (CURTIUS and HOFMANN), A., i, 647.
- Phenyl-4-nitro-1:2-azimidobenzene (NIETZKI and ALMENEÄDER), A., i, 164.
- Phenyl-*o*-nitrobenzylidenhydrazine, acetyl and benzoyl derivatives of, and their behaviour with phenylhydrazine (WALTHER), A., i, 542.
- Phenyl-*m*-nitrobenzylidenhydrazine, acetyl and benzoyl derivatives of, and their behaviour with phenylhydrazine (WALTHER), A., i, 542.
- Phenyl-*p*-nitrobenzylidenhydrazine, acetyl and benzoyl derivatives of, and their behaviour with phenylhydrazine (WALTHER), A., i, 542.
- Phenyl-*o*-nitrobenzyl nitrosamine, *p*-bromo- (BUSCH and HEINEN), A., i, 159.
- Phenyl-*o*-nitrobenzyl nitrosamine, *p*-chloro- (BUSCH and VOLKENING), A., i, 159.
- $\alpha$ -Phenyl-*o*-nitrocinnamic acid (PSCHORR), A., i, 303.
- Phenyltromethane. See Toluene,  $\omega$ -nitro-.
- iso*-Phenyl nitromethane and its copper salt (HANTZSCH and SCHULTZE), A., i, 672.
- p*-bromo- (HANTZSCH and SCHULTZE), A., i, 672.
- Phenyl-*ap*-nitrophenyl-*p*-phenylmethylformazyl (BAMBERGER), A., i, 540.
- Phenyl nitrosamine, nitro-, sodium compound of, condensation of, with nitrobenzene (KÜHLING), A., i, 236.
- 5-Phenylloxazoline (GABRIEL and SIEGLZNER), A., i, 121.
- reduction of (GABRIEL and STELZNER), A., i, 702.
- Phenylphenanthrapyrazine (FEIST and ARNSTEIN), A., i, 258.
- $\mu$ -Phenylphenanthridine: its hydrochloride and platinochloride (PICTET and HUBERT), A., i, 53, 483.
- Phenylphenofluorindine and its hydrochloride and benzoyl derivative (KEHRMANN and BÜRGIN), A., i, 512.
- Phenyl-*o*-phenylenediamine, condensation of, with  $\beta$ -naphthaquinone-sulphonic acid (KEHRMANN and LOCHER), A., i, 700.
- condensation of, with acetamidonaphthaquinone (KEHRMANN and HERTZ), A., i, 508.
- condensation of, with dihydroxyquinone and dihydroxytoluquinone (KEHRMANN and FÜHNER), A., i, 511.
- oxidation of (FISCHER and DISCHINGER), A., i, 539.
- Phenylpropionic acid, action of acetic anhydride on (MICHAEL and BUCHER), A., i, 85.
- $\beta$ -Phenylpropionic acid (*hydrocinnamic acid*), magnetic rotatory power.

- &c., of the ethylic salt of (PERKIN), T., 1064, 1077, 1078, 1175, 1238.
- $\beta$ -Phenylpropionic acid (*hydrocinnamic acid*),  $\beta$ -chloro- $\alpha$ -iodo-, and its ethylic and methylic salts (ERLENMEYER), A., i, 302.
- $\alpha$ -nitro- (REISSET), A., i, 371.
- Phenylpropionitrile, occurrence of (HOFMANN LECTURE), T., 719.
- Phenylisopropyl nitromethane, labile form of (KONOWALOFF), A., i, 676.
- $\beta$ -Phenyl- $\mu$ -propylphenyloxazole and its salts (MINOVICI), A., i, 703.
- 1 : 1'-Phenylpropyltetrahydroazindone (GOLDSTEIN), A., i, 436.
- 1 : 1'-Phenylpropyltetrahydroazindone-2'-carboxylic acid and its salts (GOLDSTEIN), A., i, 436.
- 1 : 3-Phenylpyrazolidone and its hydrochloride (HARRIES and LOTH), A., i, 321.
- Phenylpyrazolidone, acetyl derivative of (HARRIES and LOTH), A., i, 321.
- 1 : 3-Phenylpyrazolone and its hydrochloride and 2-acetyl derivative (HARRIES and LOTH), A., i, 321.
- 4 (?) -nitro- (HARRIES and LOTH), A., i, 321.
- Phenylpyridine, *p*-nitro-, from di-*p*-nitrodiazobenzene sulphide (BAMBERGER and KRAUS), A., i, 219.
- 2-Phenylpyridine (KÜHLING), A., i, 237; (LEBEN), A., i, 575.
- p*-amino-, and its hydrochloride and picrate (KÜHLING), A., i, 236.
- 2-Phenyl-6-pyridone and its hydrochloride, aurochloride, and platinumchloride (LEBEN), A., i, 575.
- 4'-Phenylquinazoline (GABRIEL and STELZNER), A., i, 506.
- 2'-chloro- (GABRIEL and STELZNER), A., i, 507.
- Phenylquinoline, *p*-nitro- (KÜHLING), A., i, 237.
- Phenylrosaniline, preparation of (HOFMANN LECTURE), T., 615.
- Phenylselenious acid and its nitrate and silver salt (KRAFFT and LYONS), A., i, 304.
- Phenylsemicarbazide and its hydrochlorides (CURTIUS and HOFMANN), A., i, 648.
- acetyl, chloroacetyl, phenylglycyl, and propionyl derivatives of (WIDMAN), A., i, 629.
- benzylidene derivative of (CURTIUS and HOFMANN), A., i, 648.
- butyryl, isobutyryl, benzoyl, cinnamoyl, and isovaleryl derivatives of (WIDMAN), A., i, 630.
- cinnamylidene derivative of (CURTIUS and HOFMANN), A., i, 648.
- Phenylsemicarbazide, *o*-hydroxybenzylidene derivative of (CURTIUS and HOFMANN), A., i, 648.
- Phenylsemicarbazidecarboxylic acid, ethylic salt, and its hydrochloride and thiocarbamide (RUPE), A., i, 429.
- $\beta$ -Phenyl- $\mu$ -styryloxazole and its salts (MINOVICI), A., i, 704.
- Phenylsuccinimide, velocity of decomposition of, by hydrochloric acid (MIOLATI), A., ii, 242.
- Phenyltartronic acid, 2 : 4 : 6-*trinitro*-, ethylic salt of (JACKSON and PHINNEY), A., i, 234.
- 2'-Phenyltetrahydroquinazoline, *m*-nitro- (BUSCH), A., i, 507.
- 4'-Phenyltetrahydroquinazoline and its hydrochloride (GABRIEL and STELZNER), A., i, 506.
- 4'-Phenyltetrahydro-2'-quinazoline and its acetate (GABRIEL and STELZNER), A., i, 506.
- Phenylthiallophanic acid, ethylic salt. See Phenylcarboxyethylthioureia.
- iso*-Phenylthiallophanic acid, ethylic salt, identity of, with phenylcarboxyethylthiocarbamide (DORAN), T., 342, 344; P., 1896, 75.
- 1-Phenylthiobiazoline bisulphide (BUSCH), A., i, 190.
- 3-hydrosulphide (BUSCH), A., i, 190.
- 3-methosulphide (BUSCH), A., i, 191.
- Phenylthiocarbamic acid, *m*-phenylene salt of (SNAPE), T., 101; P., 1896, 13.
- p*-phenylene salt of (SNAPE), T., 101; P., 1896, 13.
- $\psi$ -Phenylthiocarbamic acid, phenylic salt of (SNAPE), T., 99; P., 1896, 13.
- Phenylthiocarbamide, action of ethylic chlorocarbonate on, and its acetyl derivative (DORAN), T., 342.
- Phenylthiocarbazinic acid, interaction of, with aldehydes (BUSCH), A., i, 190.
- bisulphide (BUSCH and STERN), A., i, 677.
- methylic salt of (BUSCH), A., i, 191.
- Phenylthiocarbimide (DUNLAP), A., i, 471.
- preparation of (HOFMANN LECTURE), T., 710.
- action of benzoic chloride on (HOFMANN LECTURE), T., 712.
- action of, on glycol (SNAPE), T., 100; P., 1896, 13.
- action of, on phenol (SNAPE), T., 98; P., 1896, 12.
- action of phosphorus pentachloride on (HOFMANN LECTURE), T., 712.

- Phenylthiocarbimide, action of, on quinol (SNAPE), T., 99; P., 1896, 13.  
 action of, on resorcinol (SNAPE), T., 99; P., 1896, 13.
- Phenylthiodiazobenzene from *p*-chlorobenzene anhydride (BAMBERGER), A., i, 299.
- Phenylthiosemicarbazide (BUSCH and STERN), A., i, 677.
- 4'-Phenylthiotetrahydroquinazoline (GABRIEL and STELZNER), A., i, 506.
- p*-bromo- (BUSCH and HEINEN), A., i, 159.
- o*-chloro- (BUSCH and BRUNNER), A., i, 157.
- m*-chloro- (BUSCH and FRANCIS), A., i, 158.
- p*-chloro- (BUSCH and VOLKENING), A., i, 158.
- n*-Phenylthiouramido-*μ*-methylimidazoline. See *μ*-Methylimidazolyl-phenylthiouraea.
- Phenylthiouraea (DIXON), T., 857.
- o*-Phenyltoluene (*o*-methyl*diphenyl*) (JACOBSON and NANNINGA), A., i, 97.
- 4 : 4'-diiodo- (JACOBSON and NANNINGA), A., i, 97.
- m*-Phenyltoluene (*m*-methyl*diphenyl*) (JACOBSON and LISCHKE), A., i, 97.
- 4 : 4'-diiodo- (JACOBSON and LISCHKE), A., i, 97.
- p*-Phenyltoluene, *p*-nitro-, from di-*p*-nitrodiazobenzene sulphide (BAMBERGER and KRAUS), A., i, 219.
- Phenyl-*p*-toluic acid, *m*-nitro-, and its salts (LIMPRICHT and FALKENBERG), A., i, 43.
- Phenyl-*p*-toluidoacetic acid (MILLER and FLÖCHL), A., i, 610.
- Phenyltolylamine, discovery of (HOFMANN LECTURE), T., 615.
- o*-amino-. See *p*-Tolyl-*o*-phenylene-diamine.
- Phenyl-*p*-tolylbenzamidine: its nitrate, hydrochloride, and picrate (MARCKWALD), A., i, 30.
- Phenyl-*p*-tolylmethane? (WEILER), A., i, 237.
- Phenyltriethylammonium hydroxide, action of heat on (HOFMANN LECTURE), T., 666.
- Phenyltrimethylammonium chloride, action of heat on (HOFMANN LECTURE), T., 670.
- iodide, action of heat on (HOFMANN LECTURE), T., 721.
- Phenylurazole (RUFF), A., i, 429.
- p*-Phenylureidobenzenesulphonic acid and its salts (PAAL and GANSER), A., i, 224.
- o*-Phenylureidocinnamic acid and its salts (PAAL and GANSER), A., i, 224.
- m*-Phenylureidocinnamic acid and its salts and dibromide (PAAL and GANSER), A., i, 224.
- p*-Phenylureidocinnamic acid and its ethylic salt (PAAL and GANSER), A., i, 224.
- o*-Phenylureidophenylpropionic acid (PAAL and GANSER), A., i, 224.
- dibromide of (PAAL and GANSER), A., i, 224.
- m*-Phenylureidophenylpropionic acid (PAAL and GANSER), A., i, 224.
- p*-Phenylureidophenylpropionic acid (PAAL and GANSER), A., i, 224.
- Phenylurethane derivative of bromo-*ψ*-cumenol. See *ψ*-Cumenol.
- m*-nitro- (STRUVE and RADENHAUSEN), A., i, 35.
- p*-nitro- (STRUVE and RADENHAUSEN), A., i, 36.
- Phenylvinylcarbamide (GABRIEL and STELZNER), A., i, 122.
- Phenylvinylthiocarbamide (GABRIEL and STELZNER), A., i, 122.
- Phillipsite from Prussian Silesia (KRUSCH), A., ii, 532.
- Philothion in germinating seeds (REY-PAILHADE), A., ii, 326.
- Phleum pratense*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Phloridzin, action of, in causing glycosuria (ZUNTZ), A., ii, 667.
- Phloroglucinol in red grapes (SOS-TEGNI), A., ii, 122.
- condensation of, with anthranilic acid (NIEMENTOWSKI), A., i, 261.
- Phonolite from East Lothian (HATCH), A., ii, 116.
- iso*-Phorone, reduction of (KERP), A., i, 448.
- oxime (KERP), A., i, 447.
- Phosgenite, artificial (FRIEDEL), A., ii, 32.
- Phosgenepyroneines (MEYENBURG), A., i, 292.
- Phosphanilide, compound of aniline with (MICHAELIS and SILBERSTEIN), A., i, 344.
- Phosphates, mineral, from Algeria (CARNOT), A., ii, 34; (MALBOT), A., ii, 185.
- mineral, genesis of (GAUTIER), A., ii, 185.
- Phosphates. See under Phosphorus and also Agricultural chemistry. (Appendix.)

Phosphazo-compounds. See Oxyphosphazo.

"Phosphine," preparation of (HOFMANN LECTURE), T., 616.

Phosphines. See under Phosphorus.

Phosphochlorosulphaminebenzoic chloride. See Sulphaminebenzoic chloride.

Phosphoric acid (SIEGFRIED), A., i, 660.

as a source of carbonic anhydride in muscle (KRÜGER), A., ii, 487.

estimation of (BALKE and IDE), A., ii, 632.

Phosphorised constituent of plant seeds (SCHULZE and WINTERSTEIN), A., i, 516.

Phosphorus, spark spectrum of compounds containing (DE GRAMONT), A., ii, 585.

volatility of red (ARCTOWSKI), A., ii, 559.

action of, on some metallic chlorides (GRANGER), A., ii, 603.

poisonous effect of, on algæ and infusoria (BOKORNY), A., ii, 669.

influence of, on the nutrition of plants (STOKLASA), A., ii, 266.

Phosphorus pentabromide, formation of, from phosphorus oxychloride and hydrobromic acid (BESSON), A., ii, 472.

trichloride, action of potassium bromide and iodide on (SNAPE), A., ii, 641.

oxychloride, action of hydriodic acid on (BESSON), A., ii, 472.

oxychlorodibromide (BESSON), A., ii, 472.

oxydichlorobromide (BESSON), A., ii, 472.

hydride (*phosphine*), action of sulphuric chloride on (BESSON), A., ii, 417.

phosphonium bromide and iodide, action of carbonyl chloride on (BESSON), A., ii, 358, 359.

thiodide (BESSON), A., ii, 560.

pentoxide, vapour density of (TILDEN and BARNETT), T., 154; P., 1896, 30.

Phosphoric acid, freezing points of dilute solutions of (LOOMIS), A., ii, 352.

compound of iodic acid and (CHRÉTIEN), A., ii, 652.

sources of, in urine (CAMERER), A., ii, 379.

Superphosphates from Algeria (MALBOT), A., ii, 185.

Phosphoric acid, triethylic salt, heat of formation of (CAVALIER), A., ii, 590.

Phosphorus :—

Phosphoric acid, estimation of, gravimetrically (KILGORE), A., ii, 335; (GLADDING), A., ii, 336.

estimation of, volumetrically (KILGORE), A., ii, 335; (VEITCH), A., ii, 543.

estimation of, by the molybdenum method (NEUBAUER), A., ii, 73.

estimation of, in presence of organic matter (MALBOT), A., ii, 186.

estimation of, by the citrate method (RIMYAN and WILEY), A., ii, 126; (BERGAMI), A., ii, 273; (REITMAIR), A., ii, 575.

estimation of citrate-soluble, in basic slags (WAGNER), A., ii, 448; (PASSON), A., ii, 575.

estimation of, in soils (WOOD), T., 291; P., 1896, 13; (WILLIAMS), A., ii, 334.

insoluble, estimation of, volumetrically (EDWARDS), A., ii, 273.

insoluble, separation of, in case of both bone and mineral phosphate (BRYANT), A., ii, 623.

Metaphosphoric acid, vapour density of (TILDEN and BARNETT), T., 158; P., 1896, 30.

Phosphorous acid, methylic salt, preparation of (HOFMANN LECTURE), T., 682.

Phosphorus trisulphide (BESSON), A., ii, 560.

thiophosphoryl bromodichloride

(BESSON), A., ii, 520.

chlorodibromide (BESSON), A., ii, 520.

chloride, action of hydriodic acid on (BESSON), A., ii, 560.

Phosphines, primary and secondary, preparation of (HOFMANN LECTURE), T., 681, 682.

oxychloro-, secondary, action of heat on (MICHAELIS and SILBERSTEIN), A., i, 344.

oxides, tertiary (MICHAELIS and SILBERSTEIN), A., i, 344.

Phosphorus, microchemical reagents for (HEINE), A., ii, 536.

estimation of, gravimetrically (MEILLÈRE), A., ii, 389.

estimation of, volumetrically (LINDEMANN and MOTTEU), A., ii, 388.

estimation of, modified molybdate solution for (WINTON), A., ii, 622.

estimation of, by citrate process (MACH and PASSON), A., ii, 389.

estimation of, in iron and iron ores containing titanium (PATTINSON and PATTINSON), A., ii, 389.

- Phosphorus, estimation of, in toxicological cases (SPICA), A., ii, 218.
- Photographic plate, action of metals on a (PELLAT; COLSON), A., ii, 601.
- Photography. See Light.
- Phrenosin, "chemolysis" of (THUDICHUM), A., i, 400.
- Phrenylin (THUDICHUM), A., i, 400.
- Phthalaldehydemethylaniline (*phthalaldehydemethylanilide*) (GLOGAUER), A., i, 684.
- Phthalaldehyde- $\alpha$ -naphthylamic acid (GLOGAUER), A., i, 684.
- Phthalaldehyde- $\beta$ -naphthylamic acid (GLOGAUER), A., i, 684.
- Phthalaldehyde-*p*-toluidinic acid (GLOGAUER), A., i, 684.
- o*-Phthalaldehydic acid, condensation of, with dimethylaniline (EBERT), A., i, 441.
- condensation of, with 2'-methylquinoline (NENCKI), A., i, 256.
- semicarbazone (LIEBERMANN), A., i, 233.
- Phthalaldehydic acid tetrahydroquinolinic lactone (LIEBERMANN), A., i, 233.
- Phthalaldehydic acid tetrahydroquinolide. See Phthalaldehydic acid tetrahydroquinolinic lactone.
- Phthalaldehydic- $\alpha$ -naphthylamine (*phthaldehydic- $\alpha$ -naphthylamide*) (GLOGAUER), A., i, 684.
- Phthalaldehydic- $\beta$ -naphthylamine (GLOGAUER), A., i, 684.
- Phthalaldehydicpiperidine (*phthalaldehydicpiperide*) (GLOGAUER), A., i, 684.
- Phthalaldehydic-*p*-toluidine (*phthalaldehydic-*p*-toluidide*) (GLOGAUER), A., i, 684.
- Phthalaldehydictetrahydroisoquinoline (*phthalaldehydictetrahydroisoquinolide*) (GLOGAUER), A., i, 684.
- Phthalanil (DUNLAP), A., i, 471.
- Phthalanilic acid (DUNLAP), A., i, 471.
- iso*-Phthalazoimide (CURTIUS and DAVIDIS), A., i, 681.
- Phthaleins, action of sunlight on (OGLOBIN), A., i, 649.
- Phthalic acid, heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.
- ethylic salt, magnetic rotatory power, &c., of the (PERKIN), T., 1064, 1132, 1177, 1238.
- Phthalic acid, *tetrabromo*-, methylic salt of (RUPP), A., i, 619.
- $\alpha$ -iodo-, and its potassium and barium salts (EDINGER), A., i, 503.
- $\beta$ -iodo-, and its normal copper and silver salts (EDINGER), A., i, 503.
- Phthalic acid, *tri*iodo-, and its methylic salt (RUPP), A., i, 619.
- mononitro-derivatives of (VAUBEL), A., i, 646.
- $\beta$ -nitro-, ethylic salt of (EDINGER), A., i, 502.
- d*initro-derivatives of (VAUBEL), A., i, 646.
- $\alpha$ -Phthalic acid and its salts (HOWE), A., i, 480.
- $\beta$ -Phthalic acid and its salts (HOWE), A., i, 480.
- Phthalic anhydride, action of carbamide on (DUNLAP), A., i, 471.
- action of thiocarbamide on (DUNLAP), A., i, 471.
- condensation of, with anisole (GRANDE), A., i, 563.
- Phthalic anhydride, *tetrabromo*-(RUPP), A., i, 619.
- $\alpha$ -iodo- (EDINGER), A., i, 503.
- tri*iodo- (RUPP), A., i, 619.
- Phthalic chloride, magnetic rotatory power, &c., of (PERKIN), T., 1205, 1244.
- condensation of resorcinol with (PAWLEWSKI), A., i, 50.
- iso*-Phthalic acid, heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.
- Phthalic acid, ethylic salt, magnetic rotatory power, &c., of (PERKIN), 1132, 1177, 1238.
- tetrabromo*-(RUPP), A., i, 618.
- tetrachloro*-(RUPP), A., i, 618.
- tri*iodo- (RUPP), A., i, 619.
- p*-Phthalic acid. See Terephthalic acid.
- Phthalidyl-2'-methylquinoline and its platinochloride and aurochloride (NENCKI), A., i, 256.
- Phthalidyl-1:3:2'-trimethylquinoline (NENCKI), A., i, 256.
- Phthalimide (DUNLAP), A., i, 471.
- decomposition of, with sodium hypochlorite (CONINCK), A., i, 364.
- $\alpha$ -iodo- (EDINGER), A., i, 502.
- $\beta$ -iodo- (EDINGER), A., i, 503.
- Phthalonitrile (PINNOW and SÄMANN), A., i, 367.
- Phthalylacetoxylamine (ERRERA), A., i, 223.
- Phthalylamidoacetic acid, ethylic salt (RADENHAUSEN), A., i, 137.
- Phthalylhydrazide (RADENHAUSEN), A., i, 138; (CURTIUS and DAVIDIS), A., i, 680.
- iso*-Phthalylhydrazide, hydrochloride, platinosochloride, isopropylidene, benzylidene derivatives (CURTIUS and DAVIDIS), A., i, 680.
- iso*-Phthalylhydrazidoacetic acid,



- ethylic salt (CURTIUS and DAVIDIS), A., i, 681.
- Phthalylhydroxylamine, ammonio-derivative of (ERRERA), A., i, 223.
- Phycocyanin, the crystalline colouring matter of certain algæ (MOLISCH), A., i, 660.
- Phyllocyanic acid (SCHUNCK and MARCHLEWSKI), A., i, 574.  
composition of and absorption bands of (TSCHIRCH), A., i, 624.
- Phyllocyanin, absorption bands of (SCHUNCK and MARCHLEWSKI), A., i, 574.
- Phylloporphyrin (SCHUNCK and MARCHLEWSKI), A., i, 496, 574.
- Phylloporpuric acid (SCHUNCK and MARCHLEWSKI), A., i, 574.  
preparation of (TSCHIRCH), A., i, 624.
- Phyllotaonin, properties of (SCHUNCK and MARCHLEWSKI), A., i, 181.
- Phylloxanthin, absorption bands of (SCHUNCK and MARCHLEWSKI), A., i, 574.
- Physcia*, occurrence of atranoric and hæmatommic acids in different species of (ZOFF), A., i, 103.
- Physcidrone, composition of (HESSE), A., i, 60.
- Physiological action, relation of, to chemical constitution (BLUMENTHAL), A., ii, 377.  
comparative, of ortho- and para-compounds (BOKORNY), A., ii, 668.  
of cadmium (PADARI), A., ii, 491.  
of cadmium and zinc salts (ATHANASIU and LANGLOIS), A., ii, 319.  
of thallium (CURCI), A., ii, 491.  
of acetylene (GRÉHANT; BERTHELOT; MOISSAN), A., ii, 200; (BROCINER), A., ii, 264; (ROSEMAIN), A., ii, 492.  
of alloxan (LUSINI), A., ii, 492.  
of amidosulphonic acid (LOEW), T., 1662; P., 1896, 182.  
of arginine (SCHULZE), A., ii, 383.  
of caffeine (ALBANESE), A., ii, 492.  
of canadine (VON BUNGE), A., ii, 493.  
of cinnamic acid (HOFMANN LECTURE), T., 698.  
of gentisic acid (LIKHATSCHIEFF), A., ii, 492.  
of heteroxanthine (KRÜGER and SALOMON), A., ii, 200.  
of hydrastine derivatives (FALK), A., ii, 201.  
of hydrastine (VON BUNGE), A., ii, 492.  
of matrine (PLUGGE), A., i, 68.  
of methylhydrastamide and methylhydrastimide (FALK), A., ii, 201.
- Physiological action of methylnarcotamide and methylnarcotimide (FALK), A., ii, 201.  
of narcotine derivatives (FALK), A., ii, 201.  
of parabanic acid (LUSINI), A., ii, 492.  
of theobronine (ALBANESE), A., ii, 492.  
of derivatives of tropeine (MERCK), A., i, 65.
- Physostigmine. See Eserine.
- Phytolacca decandra*, juice of (HILGER and MAI), A., i, 496.  
red dye of fruit of (WEIGERT), A., i, 388.
- Picea vulgaris*, oil of (UMNEY), A., i, 380.
- Pickeringite from Carinthia (BRUNLECHNER), A., ii, 256.  
from New South Wales (CARD), A., ii, 251, 530.  
from the river Mana (ALEXÉEFF), A., ii, 566.
- Picric acid, preparation of (HOFMANN LECTURE), T., 641.  
absorption of, by silk (WALKER and APPLEYARD), T., 1339, 1343; P., 1896, 147.  
methylanides of, action of nitric acid on (FRANCHIMONT), A., i, 602.
- Picric acid, barium salt, water of crystallisation of (SHAW), A., i, 354.  
dibutylamine salt (BERG), A., i, 8.
- Picric chloride, action of mercuric and lead thiocyanates on (DIXON), T., 868; P., 1896, 101.
- Picro- $\psi$ -aconitine and salts (FREUND and NIEDENHOFHEIM), A., i, 451.
- Picrylnitrodehydropiperidide (FRANCHIMONT and TAVERNE), A., i, 603.
- Picrylpiperidide (FRANCHIMONT and TAVERNE), A., i, 603.
- Picrylthiocarbimide, attempted preparation of (DIXON), T., 868; P., 1896, 101.
- Piedmontite from Maryland (HILLENBRAND), A., ii, 40.
- Pieridæ, pigments of the (HOPKINS), A., ii, 198.
- Pigments of Pieridæ (HOPKINS), A., ii, 198.
- Pigeon manure. See Agricultural chemistry (Appendix).
- Pilocarpine, constitution of (HERZIG and MEYER), A., i, 68.
- Pimelic acid (isopropylsuccinic acid) from tetrahydrocarvone (VON BAEYER), A., i, 248.
- Pimelite from Pennsylvania (GOLD-SMITH), A., ii, 36.

- Pinacolic alcohol. See Hexylic alcohols.
- Pinacolin, constitution of (DELACRE), A., i, 591, 662.
- action of halogen acids on (DELACRE), A., i, 591.
- oxidation of (GLÜCKSMANN), A., i, 333.
- bromide, action of alcoholic potash on (DELACRE), A., i, 591.
- Pinacolythiocarbamide and its platinochloride and ethyl derivative (HEILPERN), A., i, 603.
- Pinacone (*hexyleneglycol*), heat of combination of, with water in the liquid and solid states (PICKERING), A., ii, 148.
- action of hydrogen bromide on (DELACRE), A., i, 591.
- Pinacone,  $C_{18}H_{30}O_2$ , from reduction of camphorone (KERP), A., i, 448.
- Pinacone,  $C_{18}H_{34}O_2$  from reduction of isophorone (KERP), A., i, 447.
- Pinene, constitution of (ARMSTRONG), T., 1399; P., 1896, 44; (TILDEN), T., 1009; P., 1896, 137; (TIEMANN), A., i, 381.
- relation of, to citrene (ARMSTRONG), P., 1896, 44.
- conversion of, into camphene (REYCHLER), A., i, 620.
- borneol from (REYCHLER), A., i, 308.
- capacity of, for bromine (TILDEN), T., 1009; P., 1896, 137.
- oxidation of (VON BAEYER), A., i, 245.
- acids from the oxidation of (WAGNER and ERTSCHIKOWSKY), A., i, 380.
- Pinene bromide, from pinene and hypobromous acid (WAGNER and GINZBERG), A., i, 381.
- dibromide, from the tetrabromide (TILDEN and NICHOLLS), P., 1896, 138.
- hydrochloride, activity of (ARMSTRONG), T., 1398.
- behaviour of, towards nitric acid (ARMSTRONG), T., 1401.
- nitrosochloride, behaviour of, towards halogen hydrides (VON BAEYER), A., i, 246.
- Pinguite from Bohemia (KATZER), A., ii, 188.
- Pinic acid (VON BAEYER), A., i, 247.
- from  $\alpha$ -pinonic acid (VON BAEYER), A., i, 308.
- bromo- (VON BAEYER), A., i, 620.
- Pinoite, formula of (KOSMANN), A., ii, 368.
- Pinole, constitution of (TILDEN), T., 1014; (WALLACH), A., i, 101.
- Pinoleglycol, from pinole dibromide (WALLACH), A., i, 101.
- anhydride (WALLACH), A., i, 571.
- monochlorhydrin, from pinene and hypochlorous acid (WAGNER and GINZBERG), A., i, 381.
- Pinole hydrate, oxidation of (WALLACH), A., i, 571.
- dibromide. See 2:8-Dihydroxyhexahydro-1:6-dibromocymene.
- Pinonic acid (TIEMANN), A., i, 248.
- constitution of (TILDEN), T., 1014.
- rotation of (TIEMANN and SEMMLER), A., i, 309.
- d*-Pinonic acid, semicarbazone, and oxime (TIEMANN and SEMMLER), A., i, 309.
- l*-Pinonic acid, semicarbazone, and oxime (TIEMANN and SEMMLER), A., i, 309.
- $\alpha$ -Pinonic acid, oxime and phenylhydrazone of (VON BAEYER), A., i, 246.
- oxidation of (VON BAEYER), A., i, 308.
- semicarbazone (TIEMANN and SEMMLER), A., i, 309.
- Pinononic acid, oxime, behaviour of, towards alkali hypobromite (WAGNER and ERTSCHIKOWSKY), A., i, 380.
- Pinoylformic acid, silver salt, phenylhydrazone, potassium hydrogen sulphite and sodium hydrogen sulphite compounds (VON BAEYER), A., i, 621.
- Pinus densiflora*, effect of lime and magnesia on development of (LOEW and HONDA), A., ii, 446.
- sylvestris*, oil of (UMNEY), A., i, 380.
- pumilio*, oil of (UMNEY), A., i, 380.
- 2-Pipecoline hydrogen racemate (MARCKWALD), A., i, 253.
- d*-2-Pipecoline (MARCKWALD), A., i, 253.
- d*-hydrogen tartrate and its hydrochloride, picrate, and dithiocarbamate (MARCKWALD), A., i, 253.
- l*-hydrogen tartrate (MARCKWALD), A., i, 253.
- l*-2-Pipecoline (MARCKWALD), A., i, 253.
- d*-hydrogen tartrate (MARCKWALD), A., i, 253.
- l*-hydrogen tartrate and its hydrochloride, picrate, and dithiocarbamate (MARCKWALD), A., i, 253.
- i*-2-Pipecoline (MARCKWALD), A., i, 253.
- iso*-Pipecoline (LADENBURG), A., i, 313.
- real nature of (MARCKWALD), A., i, 253, 497.
- Pipecolinic acid (*hexahydropyridine-2-carboxylic acid*, *piperidine-2-carboxylic acid*) (WILLSTÄTTER), A., i, 319.

- Pipecolic acid, ethylic salt (WILLSTÄTTER), A., i, 319.  
 nitroso- (WILLSTÄTTER), A., i, 319.
- Piper Lowong*, constituents of (PEINEMANN), A., i, 494.
- ovatum*, preparation of piperovatine, the active principle of (DUNSTAN and CARR), P., 1895, 177.
- Piperazine, composition of (HOFMANN LECTURE), T., 688.  
 condensation of, with formaldehyde, benzenesulphonic chloride, ethylic oxalate, and ethylic acetoacetate (ROSDALSKY), A., i, 257.  
 ethylic oxalate (ROSDALSKY), A., i, 257.  
 oxamate (ROSDALSKY), A., i, 257.  
 keto-. See Ketopiperazine.
- Piperazine-1 : 4-dicarbonyl (ROSDALSKY), A., i, 257.
- Piperazine-1 : 4-dicarboxylamide (ROSDALSKY), A., i, 257.
- Piperazine-1 : 4-dicarboxylic acid, ethylic salt of (ROSDALSKY), A., i, 257.
- Piperazine-1 : 4-diphenylsulphone (ROSDALSKY), A., i, 257.
- Piperidine, constitution of (HOFMANN LECTURE), T., 723.  
 condensation of, with bromocollidine (KNUDSEN and WOLFFENSTEIN), A., i, 60.  
 condensation of, with  $\alpha$ - and  $\beta$ -naphthol (ABEL), A., i, 254.  
 derivative of bromo- $\psi$ -cumenol and salts (AUWERS and MARWEDEL), A., i, 150.  
 derivatives, stereoisomerism of (WILLSTÄTTER), A., i, 452.  
 thiocyanate (DIXON), T., 860.  
 chlorophosphine (MICHAELIS and LUXEMBOURG), A., i, 343.
- Piperidine, thio- (SCHENCK), A., i, 427.
- Piperidine-2-carboxylic acid. See Pipecolic acid.
- Piperidine-3 : 4-dicarboxylic acid. See Hexahydrocinchononic acid.
- $\beta$  Piperidobenzylmalonic acid, ethylic salt of, and its salts (GOLDSTEIN), A., i, 436.
- Piperidylcarboxyethylthiourea (DORAN), T., 332; P., 1896, 75.
- Piperidyl dimethylammonium hydroxide, action of heat on (HOFMANN LECTURE), T., 723.
- 2 : 3-Piperidylhydroxytetrahydronaphthalene, aurochloride and platinumchloride of (BAMBERGER and LODTER), A., i, 99.
- $\mu$ -Piperidylpentiazoline,  $\gamma$ -bromo- (DIXON), T., 30; P., 1895, 217.
- Piperine, occurrence of, in *Piper Lowong*, (PEINEMANN), A., i, 495.
- Piperonalacetophenone (KOSTANECKI and SCHNEIDER), A., i, 614.
- Piperonaloxime, preparation of (ANGELI and RIMINI), A., i, 477.
- Piperonylaminoacetone and its salts (ANGELI), A., i, 296.
- Piperonylbenzylamine (ANGELI and RIMINI), A., i, 477.
- Piperonylmethane, nitro- (ANGELI), A., i, 296.
- Piperonylnitroacetone (ANGELI), A., i, 295.  
 bromo- (ANGELI), A., i, 296.  
 nitro- (ANGELI), A., i, 296.
- Piperonylonitrile, bromo- (ANGELI), A., i, 296.
- Piperonylpropylene,  $\beta$ -nitro- (ANGELI and RIMINI), A., i, 478.
- Piperovatine, preparation of (DUNSTAN and CARR), P., 1895, 177.
- Piperylenedicarboxylic acid from methyltropate methiodide, and its salts (WILLSTÄTTER), A., i, 266.  
 tetrabromo- (WILLSTÄTTER), A., i, 266.
- Pipette, colorimetric, for blood estimations (HOPPE-SEYLER and WINTERNITZ), A., ii, 552.  
 gas (BLEIER), A., ii, 271; (LIDOFF), A., ii, 385.
- Pisum sativum*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Pittacal. See Hexamethoxyrosolic acid.
- Placodin, preparation and properties of (ZOFF), A., i, 104.
- Placodium radiosum*, absence of atranoric acid in (ZOFF), A., i, 103.  
*saxicolum* and *P. melanaspis*, occurrence of atranoric acid and zeorin in (ZOFF), A., i, 103.
- Plants, assimilation of phosphorus and lecithin by (STOKLASA), A., ii, 266.  
 function of diastase in (GRÜSS), A., ii, 59.  
 evolution of oxygen by (PHIPSON), A., ii, 265.  
 respiration of certain (ZIEGENBEIN), A., ii, 265.  
 action of arsenic on (STOKLASA), A., ii, 538.  
 injurious action of cobalt and barium on (HASELHOFF), A., ii, 267.  
 non-toxic effects of copper salts on (TSCHIRCH), A., ii, 329.  
 effect of strychnine on the development of (OTTO), A., ii, 211.  
 occurrence of arginine in (SCHULZE), A., ii, 383.

- Plants, occurrence of eubebine in pipe-  
raceous (PRINEMANN), A., i, 491.  
occurrence of philothion and laccase  
in germinating seeds of certain  
(REY-PAULHAUE), A., ii, 326.  
non-occurrence of hydrogen peroxide  
in (CHOI), A., ii, 60.  
colouring matters of various British  
(PERKIN and HUMMEL), T., 1566;  
P., 1896, 185.  
dyes in (SCHRÖTTBE-KRISTELLI), A.,  
ii, 208.  
See also Agricultural chemistry (Ap-  
pendix).
- Plant-seeds, a phosphorised constituent  
of (SCHULZE and WINTERSTEIN), A.,  
i, 516.
- Platinum, native, from Fifield, N.S.W.  
(CARD), A., ii, 251.  
specific heat of (BARTOLI and STRAC-  
CIATI), A., ii, 145.  
melting point of (HOLBORN and  
WIEN), A., ii, 87.  
fusibility of, in a wind furnace fed  
with carbon (MEYER), A., ii, 429.  
effect of carbon on the melting point  
of (HARTLEY), T., 846; P., 1896,  
98.  
rate of diffusion of, through lead  
(ROBERTS-AUSTEN), A., ii, 592.  
influence of, in promoting the com-  
bination of carbonic oxide and  
oxygen (DIXON), T., 788; P., 1896,  
56.
- Platinum black, absorption of acids and  
alkalis from solutions by (KELLNER),  
A., ii, 232.
- Platinum bases:  
Platosomonodiamine salts (COSSA),  
A., ii, 251.
- Platinum chloride, action of magnesium  
on solutions of (VITALI), A., ii,  
420.
- Chloroplatinic acid, hydrated, absorp-  
tion of moisture by (HAKE), P.,  
1896, 34.
- Platinoclorides, estimation, volumetric,  
of (DE KONINCK), A., ii, 77.
- Platinum potassium haloid compounds  
(HERTY), A., ii, 306.
- Platinisodium oxide, action of oxalic  
acid on (WERNER), A., i, 466.
- Platinum silicide (VIGOUROUX), A., ii,  
600.  
sulphides (ANTONY and LUCCHESI),  
A., ii, 528.  
sulphide, action of metallic cyanides  
on (SCHERTEL), A., i, 197.
- Platinocyanides, preparation of  
(SCHERTEL), A., i, 197.  
phosphorescence of the salts of  
(JACKSON), P., 1896, 58.
- Platinum:—  
Platoso-oxalic acids, isomeric (WER-  
NER), A., i, 465, 466.
- Platinum, estimation, volumetric, of  
(DE KONINCK), A., ii, 77.
- Plumbosferrite from Sjö mine, Sweden  
(IGELSTRÖM), A., ii, 307.
- Pneumococcus*, fermentation of sugars  
by Friedländer's (GRIMBERT), A., ii,  
322.
- Poison, African arrow, from *Acokanthera*  
species (FRASER and TILLIE), A., i,  
386.
- Poisons, action of heavy metals as  
(JUTT), A., i, 584.  
studies on chemical substance as, to  
algæ and infusoria (BOKORNY),  
A., ii, 669.
- Polarimeter. See Light.
- Pollen, composition of, of flowers, of  
the sugar beet (STIFT), A., ii, 541.
- Pollucite from Maine (FOOTE), A., ii,  
660.
- Polybasite, crystallisation of (PEN-  
FIELD), A., ii, 658.
- Polyerase (?) from Lake Ladoga (ERD-  
MANN), A., ii, 570.
- Polylymite from Sudbury, Canada  
(HILLEBRAND), A., ii, 40.
- Polygala*, existence of salicylic acid and  
its methylic salt in (SCHNEEGANS), A.,  
ii, 328.
- Polygala Senega*, existence of gaul-  
therase in (BOURQUELOT), A., ii, 540.
- Polyolithionite, constitution of (CLARKE),  
A., ii, 87.
- Polymolecular reactions. See Re-  
actions.
- Polyporea*, amount of tannin in (NAU-  
MANN), A., ii, 538.
- Polyporus sulphureus*, &c., emulsin  
from (BOURQUELOT and HÉRISSEY),  
A., i, 195.
- Polystichic acid (POULSSON), A., i, 387.
- Polystichum spinulosum*, two new acids  
from (POULSSON), A., i, 387.
- Polysaccharides, action of animal secre-  
tions and organs on (FISCHER and  
NIEBEL), A., ii, 665.  
fermentation of (FISCHER and LIND-  
NER), A., i, 195.
- Poppy seed oil, oxidisability of  
(BISHOP), A., ii, 399.
- Potash. See Agricultural chemistry.
- Potassium, fluorescence spectrum of  
the vapour of (WIDEMANN and  
SCHMIDT), A., ii, 346.  
spark spectra of the salts of (DE  
GRAMONT), A., ii, 585.
- Potassium amalgam, reduction by  
means of (HOFMANN LECTURE), T.,  
649.

- Potassium salts, action of, on the coagulation of milk and blood (RINGER), A, ii, 49.  
 See also Agricultural chemistry.  
 dihydrogen arsenate, molecular weight of solid (FOCK), A, ii, 160.  
 metaselenoarsenate (CLEVER and MUTHMANN), A, ii, 18.  
 oxyseleonoarsenate (CLEVER and MUTHMANN), A, ii, 18.  
 thioselenoarsenate (CLEVER and MUTHMANN), A, ii, 18.  
 monothioarsenate (WEINLAND and RUMPF), A, ii, 473.  
 hydrogen monothioarsenate (WEINLAND and RUMPF), A, ii, 473.  
 dihydrogen monothioarsenate (WEINLAND and RUMPF), A, ii, 473.  
 bromide, thermal expansion of solutions of (DE LANNOY), A, ii, 233.  
 freezing points of aqueous solutions of (PONSOT), A, ii, 412.  
 tribromide, dissociation in solution of (JAKOWKIN), A, ii, 514.  
 carbonate, freezing points of dilute solutions of (LOOMIS), A, ii, 352.  
 chlorate, manufacture of (BAYER), A, ii, 517.  
 electrolytic conductivity of solutions of (BAUER), A, ii, 144.  
 action of nitric oxide on (AUDEN and FOWLER), A, ii, 172.  
 liberation of chlorine on heating manganese dioxide with (MCLEOD), T, 1015: P., 1896, 141.  
 velocity of the reaction in acid solution of potassium iodide and (SCHLUNDT), A, ii, 297.  
 case of poisoning with (BRANDENBURG), A, ii, 491.  
 chloride, electrolytic conductivity of aqueous solutions of (MALTBY), A, ii, 144.  
 electrical conductivity of solutions in acetone of (LASZCZYNSKI), A, ii, 555.  
 freezing points of aqueous solutions of (PONSOT), A, ii, 412.  
 freezing points of dilute solutions of (WILDERMANN), A, ii, 351; (LOOMIS), A, ii, 352; (ABEGG), A, ii, 588.  
 freezing points of concentrated aqueous solutions of (ROLOFF), A, ii, 291.  
 action of magnesium on solutions of (VITALI), A, ii, 420.  
 dichromate, electrochemical preparation of (LORENZ), A, ii, 651.  
 ferrate (MOESER), A, ii, 250.  
 Potassium ferrite (MOESER), A, ii, 250.  
 molybdenum oxyfluorides (MARCHETTI), A, ii, 20.  
 orthosulphoxyantimonate (McCAY), A, ii, 305.  
 niobium oxyfluoride (MARCHETTI), A, ii, 20.  
 tungsten oxyfluorides (MARCHETTI), A, ii, 20.  
 platinum haloid compounds (HERTY), A, ii, 306.  
 barium imidosulphonates (DIVERS and HAGA), T., 1622.  
 mercury imidosulphonate (DIVERS and HAGA), T., 1622.  
 iodate, action of nitric oxide on (AUDEN and FOWLER), A, ii, 172.  
 hypiodite, velocity of decomposition of (NOYES and SCOTT), A, ii, 158.  
 iodide, electrical conductivity of solutions of, in acetone (LASZCZYNSKI), A, ii, 555.  
 electrolysis of a solution of, in acetone (LASZCZYNSKI), A, ii, 556.  
 velocity of the reaction in acid solution of potassium chlorate and (SCHLUNDT), A, ii, 297.  
 triiodide, dissociation of, in solution (JAKOWKIN), A, ii, 514.  
 iodomolybdate (CHRÉTIEN), A, ii, 651.  
 perthiomolybdate (HOFMANN), A, ii, 476.  
 nitrate, freezing points of dilute solutions of (LOOMIS), A, ii, 352.  
 nitrite, reduction of (DIVERS and HAGA), T., 1612; P., 1896, 179.  
 nitrosulphate, preparation and reduction of (DIVERS and HAGA), T., 1611; P., 1896, 179.  
 nitrosodisulphonate, constitution of (HANTZSCH and SEMPLÉ), A, ii, 95.  
 nitrosotrisulphonate, constitution of (HANTZSCH and SEMPLÉ), A, ii, 95.  
 amidochlorosmiat (BRIZARD), A, ii, 654.  
 perchlorate, molecular weight of solid (FOCK), A, ii, 160.  
 action of nitric oxide on (AUDEN and FOWLER), A, ii, 172.  
 permanganate, electrochemical preparation of (LORENZ), A, ii, 650.  
 molecular weight of solid (FOCK), A, ii, 160.  
 action of nitric oxide on (AUDEN and FOWLER), A, ii, 172.  
 poisonous effect of, on algæ and infusoria (BOKOENY), A, ii, 669.

- Potassium persulphate, apparatus for showing the formation of (ELBS), A., ii, 519.
- pentaphosphide and its ammonia compound (HUGOT), A., ii, 20.
- dihydrogen phosphate, molecular weight of solid (FOCK), A., ii, 160.
- aluminium phosphates from Algeria (CARNOT), A., ii, 34.
- from Algeria and France (CARNOT), A., ii, 529.
- ruthenate, reduction of, by ammonia (BRIZARD), A., ii, 478.
- triselenide (CLEVER and MUTHMANN), A., ii, 19.
- sulphate, freezing points of aqueous solutions of (PONSOT), A., ii, 412.
- freezing points of dilute solutions of (LOOMIS), A., ii, 352; (ABEGG), A., ii, 588.
- constitution of double salts containing (TUTTON), T., 519; P., 1896, 71.
- and chloride, effect of, on germination (CLAUDEL and CROCHETELLE), A., ii, 442.
- cobalt sulphate, density and optical behaviour of (TUTTON), T., 419.
- copper sulphate, density and optical behaviour of (TUTTON), T., 431.
- ferrous sulphate, density and optical behaviour of (TUTTON), T., 387.
- magnesium sulphate, density of (TUTTON), T., 355.
- optical behaviour of (TUTTON), T., 356.
- nickel sulphate, density and optical behaviour of (TUTTON), T., 407.
- uranium sulphate, phosphorescent radiations from (BECQUEREL), A., ii, 406.
- zinc sulphate, density and optical behaviour of (TUTTON), T., 374.
- titanodifluoride (MARCHETTI), A., ii, 20.
- fluoroxypertitanate (PICCINI), A., ii, 178.
- ammonium paratungstate (HALLOPEAU), A., ii, 652.
- iodotungstate (CHRÉTIEN), A., ii, 652.
- zircono- and dizircono-decatungstates (HALLOPEAU), A., ii, 607.
- Potassium chromothiocyanate, absorption spectrum and constitution of (MAGNANINI), A., ii, 345.
- cobaltcyanide, action of nitric acid on (JACKSON and COMEX), A., i, 402.
- cobaltioxalate (SÖRENSEN), A., i, 204.
- Potassium cyanide, action of bromine on (SCHOLT), A., i, 585.
- action of cyanogen chloride on (NEF), A., i, 73.
- action of chlorine on (NEF), A., i, 73.
- action of potassium nitrite on (HOFMANN), A., i, 69.
- action of sulphurous acid on (VON PECHMANN and MANCK), A., i, 14.
- and potassium nitrite, explosive double salt of (HOFMANN), A., i, 69.
- ferricyanide, action of nitrous acid on (MARIE and MARQUIS), A., i, 403.
- ferrocyanide, thermal expansion of solutions of (DE LANNON), A., ii, 233.
- action of nitrous acid on (MARIE and MARQUIS), A., i, 403.
- platinocyanide, phosphorescence of (JACKSON), P., 1896, 59.
- thiocyanate, electrical conductivity of solutions of, in acetone (LASZCZYNSKI), A., ii, 555.
- electrolysis of a solution of, in acetone (LASZCZYNSKI), A., ii, 556.
- tungstatartrate (HENDERSON and BARR), T., 1456; P., 1896, 169.
- Potassium, estimation of (VOGEL and HAEFCKE), A., ii, 577; (FABRE), A., ii, 624.
- estimation, volumetrically (DE KONINCK), A., ii, 77.
- estimation of, as platinochloride (WINTON), A., ii, 126.
- estimation of, in fire-clays, manures, &c. (CAMERON), A., ii, 392.
- estimation of available, in soils (WOOD), T., 287; P., 1896, 13.
- Potato tubers, respiration of (ZIEGENBEIN), A., ii, 265.
- Potato, proteids of the (OSBORNE and CAMPBELL), A., i, 715.
- Potatoes. See Agricultural chemistry (Appendix).
- Potential difference. See Electricity.
- Powellite, artificial (MICHEL), A., ii, 36.
- Praseodymium tungstate and molybdate (HITCHCOCK), A., ii, 526.
- Precipitates, washing of, with boiling water, apparatus for (JEWETT), A., ii, 123.
- Prehnite from Fassa, Tyrol (SCHNEIDER), A., ii, 38.
- Prehnitic acid, preparation of (MEYER), A., i, 547.
- Presidential address (HARCOURT), T., 563; P., 1896, 80.

- Pressure, apparatus for experiments under (WALTER), A., ii, 297.  
critical. See Critical pressure.  
dependence of the volume of solutions on (TAMMANN), A., ii, 13.  
influence of, on the electrical conductivity of solutions (TAMMANN), A., ii, 6.  
influence of, on the dielectric constant (RATZ), A., ii, 288.  
influence of, on the freezing points of solutions (COLSON), A., ii, 157.  
influence of, on the rate of hydrolysis of sugar and ethereal salts by acids (ROTHMUND), A., ii, 594.  
of ethylic alcohol vapour, connection between temperature, volume, and BATELLI, A., ii, 150.  
of saturated vapour. See Heat.
- Primuline base. See Dehydrothiotoluidine.
- Prolectite from Nordmark, Sweden (SJÖGREN), A., ii, 114.
- Propaldehyde,  $\alpha$ -chloro- (BROCHET), A., i, 114.
- Propane, tetrachloro- (SZENIC and TAGGESELL), A., i, 81.  
 $\alpha$ -chloro- $\beta\beta$ -dinitro- (SCHOLL and MATTHAIPOULOS), A., i, 520.  
 $\alpha$ -chloro- $\beta$ -nitro- $\beta$ -nitroso- (SCHOLL and MATTHAIPOULOS), A., i, 470.  
 $\beta$ -nitro- $\beta$ -nitroso- (*propyl- $\psi$ -nitrole*), reduction of (SCHOLL and LANDSTEINER), A., i, 198.
- cyclo-Propane (*trimethylene*), conversion of, into propylene (TANATAR), A., i, 457.
- Propanehexacarboxylic acid (*pentanedioic-2:3:3:4-tetramethyloic acid*), hydrolysis of (BISCHOFF), A., i, 468.  
methylic salt of (BISCHOFF), A., i, 468, 527.
- Propaneoxy methane, 1:3:3-tribromo- (LESPIEAU), A., i, 332.
- Propanetetracarboxylic acid [= 1:1:2:2] (BISCHOFF), A., i, 527.
- Propanetetracarboxylic acid [= 1:2:2:3] (*pentanedioic-3-dimethyloic acid*) methylic salt (BISCHOFF), A., i, 466.
- Propanetricarboxylic acid (BISCHOFF), A., i, 527.  
ethylic salt, velocity of hydrolysis of (HJELT), A., i, 600.
- Propargylpentacarboxylic acid, hydrolysis of (BISCHOFF), A., i, 601.  
methylic salt (BISCHOFF), A., i, 601.
- Propene. See Allylene.
- Propeneoxygen methane, 2-bromo-, action of bromine on (LESPIEAU), A., i, 332.  
1:2-dibromo- (LESPIEAU), A., i, 332.
- o*-Propenylanisoil. See *o*-Anethoil.  
*m*-Propenylanisoil. See *m*-Anethoil.
- Propeptone, estimation of, in beerwort (SCHJERNING), A., ii, 631.
- Propinene, 1:3-dibromo- (LESPIEAU), A., i, 332.
- Propineneoxygen methane (LESPIEAU), A., i, 332.  
1-bromo- (LESPIEAU), A., i, 332.
- Propiolic acid, ethylic salt, action of hydrazine on (CURTIUS), A., i, 339.
- Propionamide, action of sodium hypochlorite on (DE CONINCK), A., i, 282.
- 2-Propionamidodiphenyl (PICTET and HUBERT), A., i, 52, 483.
- Propionic acid, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1172, 1236.  
melting and solidifying points of (MASSOL), A., i, 408.  
action of uranium salts on (FAY), A., i, 465.  
distillation of a mixture of water and (SOREL), A., i, 463.  
 $\alpha$ -oxime of (HANTZSCH and WILD), A., i, 285.
- Propionic acid, Lead tetrapropionate (HUTCHINSON and POLLARD), T., 224; P., 1896, 31.  
crotonylic salt (CHARON), A., i, 661.  
diethylacetylenic salt of (ANDERLINI), A., i, 202, 203.
- duroquinol salt of (RÜGHEIMER and HANKEL), A., i, 677.
- ethylic and methylic salts, heat of evaporation of the (MARSHALL and RAMSAY), A., ii, 349.
- phenylic salt, magnetic rotatory power, &c., of (PERKIN), T., 1075, 1076, 1078, 1179, 1238.
- Propionic acid,  $\alpha$ -amino-. See  $\alpha$ -Alanine.
- $\beta$ -amino- (WEIDEL and ROITHNER), A., i, 470.  
ethylic salt, hydrochloride of (WEIDEL and ROITHNER), A., i, 470.
- $\alpha$ -bromo-, action of finely divided silver on (HELL), A., i, 10.  
action of hydroxylamine on (HANTZSCH and WILD), A., i, 285.  
ethylic salt, action of acetone on (PERKIN and THORPE), T., 1482.  
action of ethylic chloracetate on (BISCHOFF), A., i, 466.
- dextrochloro-, ethylic salt, rotatory power of (PURDIE and WILLIAMSON), T., 829; P., 1896, 97.
- $\beta$ -iodo-, unsaturated compound obtained by the action of sodium

- phenoxide on (LUCHMANN), A., i, 545.
- Propionic acid, sodium salt, action of sodium hydrogen sulphide on (LOVÉN), A., i, 412.
- ethylic salt, action of ethylic sodio-acetoacetate on (BENTLEY and PERKIN), T., 1511.
- action of ethylic sodioisopropylmalonate on (HEINKE and PERKIN), T., 1506; P., 1896, 155.
- Propionic anhydride, refraction equivalent of (ANDERLINI), A., ii, 229.
- Propionic chloride, action of lead thiocyanate on (DIXON), T., 856; P., 1896, 100.
- Propionic fluoride (COLSON), A., i, 346; (MESLANS and GIRARDET), A., i, 346.
- Propionitrile, heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- action of hydrogen chloride and acetic acid on (COLSON), A., i, 282.
- Propionylidurene (BAUM and MEYER), A., i, 228.
- Propionylglycollic acid, oxime of (WOLFF and SCHWABE), A., i, 524.
- $\alpha$ -oxime (WOLFF), A., i, 88.
- acetyl derivative of (WOLFF), A., i, 88.
- anhydride of (WOLFF), A., i, 88.
- decomposition products of (WOLFF), A., i, 88.
- Propionylmalic acid, methylic, ethylic salts, rotatory power of the (WALDEN), A., ii, 136.
- bromo-, diethylic salt, rotatory power of (WALDEN), A., ii, 136.
- Propionylmandelic acid, methylic and ethylic salts, rotatory power of the (WALDEN), A., ii, 138.
- Propionylmesitylene, behaviour of, towards phenylhydrazine (BAUM), A., i, 222.
- Propionylphenylsemicarbazide (WIDMAN), A., i, 629.
- $\alpha$ -Propionyl- $\nu$ -phenylbenzylthiourea, and the action of alkalis and silver nitrate on (DIXON), T., 859, 860; P., 1896, 101.
- action of silver nitrate on (DIXON), T., 859; P., 1896, 100.
- $ab$ -Propionylphenylthiocarbamide (DIXON), T., 856; P., 1896, 100.
- action of caustic potash on (DIXON), T., 857.
- action of silver nitrate on (DIXON), T., 857; P., 1896, 100.
- $\alpha$ -Propionyl- $\beta$ -phenylthiosemicarbazide (DIXON), T., 860; P., 1896, 101.
- Propionylphenylurea (DIXON), T., 857.
- Propionylthiocarbimide (DIXON), T., 856; P., 1896, 100.
- action of ammonia, aniline, methyl-aniline, piperidine, and  $\sigma$ -,  $m$ -, and  $p$ -toluidines on (DIXON), T., 856—862.
- action of aldehyde-ammonia on (DIXON), T., 862.
- action of benzylic alcohol on (DIXON), T., 862.
- action of phenylhydrazine on (DIXON), T., 860; P., 1896, 101.
- $ab$ -Propionyl- $o$ -tolylthiocarbamide (DIXON), T., 858; P., 1896, 100.
- action of caustic potash on (DIXON), T., 858.
- $ab$ -Propionyl- $m$ -tolylthiocarbamide (DIXON), T., 858; P., 1896, 100.
- action of alkali and of silver nitrate on (DIXON), T., 858.
- $ab$ -Propionyl- $p$ -tolylthiocarbamide, and action of alkali and of silver nitrate on (DIXON), T., 859; P., 1896, 100.
- $\alpha$ -Propoxyphenylthiazoline,  $\gamma$ -bromo- (DIXON), T., 33; P., 1895, 217.
- Propyl  $\alpha$ -hydroxybutyl ketone, density of (ANDERLINI), A., i, 203.
- iso*-Propylacetic acid. See *iso*-Valeric acid.
- Propylacetoacetic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- iso*-Propylacetoacetic acid, ethylic salt, rate of formation of (BISCHOFF), A., i, 85.
- iso*-Propylacrylic acid. See Hexenoic acids.
- Propylallylacetic acid. See Octenoic acids.
- Propylallylmalonic acid, ethylic salt, rate of hydrolysis of (HJELT), A., i, 598.
- iso*-Propylallylmalonic acid and its ethylic salt (HJELT), A., i, 598.
- hydrolysis of (HJELT), A., i, 205.
- Propylamine, action of carbon bisulphide on (PONZIO), A., i, 636.
- $\beta$ -bromo-, action of methyl- and allylthiocarbimides on (DIXON), T., 24; P., 1895, 216.
- iso*-Propylbenzaldehyde. See Cumin-aldehyde.
- Propylbenzene. See *n*-Cumene.
- iso*-Propylbenzene. See Cumene.
- iso*-Propylbenzoylpropionic acid (MÜHRE), A., i, 232.
- $\alpha$ -*iso*-Propyl- $\beta$ -isobutylacrylic acid. See Decenoic acids.
- 3'-Propylisocarbostyryl (ALBAHARY), A., i, 699.



- 3'-Propylisocarbostyryl, 4'-cyano- (ALBAHARY), A., i, 699.
- $\alpha$ -iso-Propylcarboxyglutaric acid. See iso-Hexane- $\alpha\gamma\gamma$ -tricarboxylic acid.
- Propyl-*o*-coumaroketone. See *o*-Hydroxystyryl propyl ketone.
- Propyldihydro-*o*-coumarone (HARRIES and BUSSE), A., i, 301.
- Propyldihydro-*o*-coumaroketone. See *o*-Hydroxyphenylethyl propyl ketone.
- 1'-Propyldihydroisindole and its hydrochloride (BROMBERG), A., i, 580.
- Propylene, oxidation of, by palladinised copper oxide (CAMPBELL), A., ii, 171.
- action of acetic chloride on (KONDAKOFF), A., i, 462.
- Propylene, bromo-. See Allylic bromide.
- aa*-dibromo- (VALENTIN), A., i, 79.
- chloro-. See Allylic chloride.
- aa*-dichloro- (VALENTIN), A., i, 79.
- ab*-dichloro- (SZENIC and TAGGSELL), A., i, 81.
- iodo-. See Allylic iodide.
- oxide, action of zinc dust on (KLINGER and LONNES), A., i, 375.
- Propylene- $\psi$ -thiocarbamide (GADAMER), A., i, 415.
- action of bromine on (GADAMER), A., i, 415.
- bromo- (GADAMER), A., i, 414.
- Propyleneimine, discovery of (HOFMANN LECTURE), T., 687.
- iso-Propylethanetricarboxylic acid, ethylic salt, anil, and anilic acid of (BENTLEY, PERKIN, and THORPE), T., 273.
- iso-Propylfuran- $\alpha$ -naphthaquinone, preparation of (HOOKER), T., 1370, 1372.
- iso-Propylfuran- $\beta$ -naphthaquinone, preparation of (HOOKER), T., 1369, 1376.
- azine obtained from, by the action of *o*-tolylenediamine (HOOKER), T., 1378.
- iso-Propylglutaranilic acid (PERKIN), T., 1497; P., 1896, 170; (HEINKE and PERKIN), T., 1508.
- iso-Propylglutaric acid (HEINKE and PERKIN), T., 1507; P., 1896, 155.
- and its salts (PERKIN), T., 1495; P., 1896, 154, 170.
- action of acetic anhydride on (PERKIN), T., 1496.
- oxidation of (PERKIN), T., 1497.
- ethylic salt (PERKIN), T., 1496.
- iso-Propylglutaric anhydride (PERKIN), T., 1496; P., 1896, 170; (HEINKE and PERKIN), T., 1508.
- action of aniline on (PERKIN), T., 1497.
- iso-Propylglutolactonic acid (FITTIG and WOLFF), A., i, 136.
- action of aqueous alkalis on (FITTIG and WOLFF), A., i, 136.
- non-identity of, with terpenylic acid (FITTIG and WOLFF), A., i, 135.
- 5-iso-Propylheptan-2-onic acid; its ethylic salt, semicarbazone, oxime, and phenylhydrazone (VON BAEYER), A., i, 247.
- 4-iso-Propylcyclohexadienecarboxylic acid and its sodium and silver salts (BAEYER and VILLIGER), A., i, 622.
- Propylcyclohexane (*propylhexahydrobenzene*, *hexahydro-n-cumene*), tribromo-derivative from (TCHITCHIBABIN), A., i, 351.
- 4-iso-Propylcyclohexenecarboxylic acid (*tetrahydrocuminic acid*), bromo- (VON BAEYER and VILLIGER), A., i, 622.
- iso-Propylhydroxyglutaric acid (FITTIG and WOLFF), A., i, 136.
- Propylic alcohol, action of light on (RICHARDSON and FORTEY), T., 1351; P., 1896, 164.
- heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- normal, action of chlorine on (BROCHET), A., i, 114.
- bromide, magnetic rotatory power and relative density of (PERKIN), T., 1063, 1173, 1237.
- ether, dichloro-, unsymmetrical (BROCHET), A., i, 114.
- unsymmetrical, action of water on (BROCHET), A., i, 114.
- nitrosoferrocyanide (HOFMANN), A., i, 269.
- iso-Propylic alcohol, action of light on (RICHARDSON and FORTEY), T., 1352; P., 1896, 164.
- heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.
- sodium derivative, molecular weight of (BECKMANN and SCHLIEBS), A., i, 124.
- barium sulphate (SPIEGEL), A., i, 332.
- hydrogen sulphate, preparation of (SPIEGEL), A., i, 332.
- Propylia. See Triethylenediamine.
- Propyrideneacetic acid. See Pentenoic acids.
- iso-Propyrideneacetone. See Mesityl oxide.
- Propyrideneanthranilic acid (NIEMEN-TOWSKI and ORZECZOWSKI), A., i, 187.

- iso*-Propylidenefumarylhydrazide (RADENHAUSEN), A., i, 138.  
benzylidene derivative of (RADENHAUSEN), A., i, 139.
- iso*-Propylidenephnylamidoacetohydrazide (RADENHAUSEN), A., i, 138.
- Propylidenephthalide (BROMBERG), A., i, 579.
- Propylmalonic acid, ethylic salt, hydrolysis of (HJELT), A., i, 205.  
action of ethylenic bromide on (BISCHOFF), A., i, 129.  
sodio-, ethylic salt, action of ethylic  $\alpha$ -bromopropionate,  $\alpha$ -bromobutyrate,  $\alpha$ -bromoisobutyrate and  $\alpha$ -bromoisovalerate on (BISCHOFF), A., i, 467.
- iso*-Propylmalonic acid, alkyl salts of, action of sodium ethoxide and ethylenic bromide on (BENTLEY, HAWORTH, and PERKIN), T., 162.  
ethylic salt, rate of formation of (BISCHOFF), A., i, 85.  
hydrolysis of (HJELT), A., i, 205, 598.  
action of ethylenic bromide on (BISCHOFF), A., i, 129.  
sodio-, ethylic salt, action of ethylic  $\alpha$ -bromopropionate,  $\alpha$ -bromobutyrate,  $\alpha$ -bromoisobutyrate, and  $\alpha$ -bromoisovalerate on (BISCHOFF), A., i, 467.  
action of ethylic  $\beta$ -iodopropionate on (HEINKE and PERKIN), T., 1506; P., 1896, 155; (AVERS and TITHERLEY), A., i, 643.
- Propylmesitylene, synthesis of (TÖHL), A., i, 16.  
amino- (TÖHL), A., i, 17.  
acetyl derivative of (TÖHL), A., i, 17.  
*dibromo*- (TÖHL), A., i, 17.  
*nitro*- (TÖHL), A., i, 17.  
*dinitro*- (TÖHL), A., i, 17.
- Propylmesitylenesulphonamide (TÖHL), A., i, 17.
- Propylmesitylenesulphonic acid, salts of (TÖHL), A., i, 17.
- Propyl- $\psi$  nitrole. See Propane,  $\beta$ -nitro- $\beta$ -nitroso-.
- o*-*iso*-Propylphenol. See *o*-Cumenol.
- m*-*iso*-Propylphenol. See *m*-Cumenol.
- iso*-Propylphenylacetic acid, *i*-chloro-, from *d*-isopropylphenylglycollic acid (WALDEN), A., i, 139.  
*d*-chloro- (WALDEN), A., i, 139.
- 1'-Propylphthalazine, 4'-chloro- (BROMBERG), A., i, 580.
- 1'-Propylphthalazone (BROMBERG), A., i, 579.
- 1'-Propylphthalimidine (BROMBERG), A., i, 579.
- 1-Propylpiperidine,  $\gamma$ -bromo-, hydrobromide of (GABRIEL and STELZNER), A., i, 703.  
 $\gamma$ -chloro-, hydrochloride of (GABRIEL and STELZNER), A., i, 703.
- a*-*iso*-Propylpropane-*aaa*-tricarboxylic acid. See Hexanetricarboxylic acids.
- 2-Propylpyridine. See Conyryne.
- iso*-Propylquinol (BAYRAC), A., i, 606.
- 3'-Propylisoquinoline and its salts (ALBAHARY), A., i, 699.  
1'-chloro-, and its salts (ALBAHARY), A., i, 699.
- iso*-Propylquinone (BAYRAC), A., i, 606.
- iso*-Propylsuccinic acid. See Pimelic acid.
- Propylsuccinimide, velocity of decomposition of, by hydrochloric acid (MIOLATI), A., ii, 242.
- 2-Propyltetrahydropyridine. See  $\gamma$ -Coniceine.
- Propylthiocarbimide,  $\beta\gamma$ -*dibromo*- (DIXON), T., 17; P., 1895, 215.  
action of alcoholic ammonia on (DIXON), T., 18, 22; P., 1895, 215, 216.  
action of aniline on (DIXON), T., 17.  
action of organic bases on (DIXON), T., 26; P., 1895, 216.  
action of methylic, ethylic, and propylic alcohols on (DIXON), T., 31—33, P., 1895, 217.  
action of methylamine on (DIXON), T., 854; P., 1896, 100.  
action of silver chloride on (DIXON), T., 20; P., 1895, 215.
- Propylthiourea, *dibromo*- (DIXON), T., 18, 23; P., 1895, 215.
- a*-Propylvaleric acid. See Octoic acids.
- Propylvalerolactone. See Octolactone.
- iso*-Propylvalerolactone. See Octolactone.
- Propyroin. See Ethyl  $\alpha$ -hydroxypropyl ketone.
- Protamine (KOSSEL), A., i, 582.
- Protea mellifera*, constituents of (HESSE), A., i, 495.
- Proteacin. See Leucodrin.
- Proteic acid and its lead salt (HESSE), A., i, 496.
- Proteic acid, nature of (PAAL and SCHILLING), A., i, 399.
- Proteid from malt (OSBORNE and CAMPBELL), A., i, 715.  
from plant-seeds (SCHULZE and WINTERSTEIN), A., i, 516.  
from white of egg by action of formaldehyde (BLUM), A., i, 659.

Proteids, formation of, in plants from different organic compounds (LOEW), A., ii, 56.  
 formation of, from asparagine in plants (KINOSHITA), A., ii, 54.  
 formation of, and of carbohydrates in plants (SAPOSCHNIKOFF), A., ii, 537.  
 of the almond, peach-kernel, walnut, and other plants (OSBORNE and CAMPBELL), A., i, 715.  
 of barley (OSBORNE), A., i, 455.  
 of cotton seeds (OSBORNE and VORHIES), A., ii, 210.  
 of grain (RITTHAUSEN), A., i, 716.  
 of hops (BEHRENS), A., ii, 207.  
 of the kidney-bean (OSBORNE), A., i, 454.  
 of malt (OSBORNE and CAMPBELL), A., i, 714.  
 of peas and vetches (OSBORNE and CAMPBELL), A., i, 715.  
 of the potato (OSBORNE and CAMPBELL), A., i, 715.  
 of rye meal (OSBORNE), A., i, 399.  
 from wheat meal, rye meal, barley meal, oat meal, maize meal (KJELDAHL), A., i, 583.  
 of muscle-plasma (VON FURTH), A., ii, 48.  
 of urine (MÖRNER), A., ii, 120.  
 action of nitrous acid on (LANDSTEINER), A., i, 584.  
 amount of arginine formed from various (HEDIN), A., i, 194.  
 absorption of, from the small intestine (FRIEDLANDER), A., ii, 536.  
 metabolism, influence of muscular work on (KRUMMACHER), A., ii, 377.  
 feeding experiments with, on sheep (LEHMANN), A., ii, 262.  
 vegetable, constitution of (FLEURENT), A., i, 112.  
 amount of nitrogen as, in nodules (STOKLASA), A., ii, 205.  
 poisonous effect of, on algæ and infusoria (BOKORNY), A., ii, 669.  
 colour detections of (LANDSTEINER), A., ii, 284.  
 colour detection of, with nitrous acid and phenols (LANDSTEINER), A., ii, 284.  
 separation of, in beerwort (SCHJERNING), A., ii, 631.

Proteids. See also:—

Abrin.  
 Albumin.  
 Albumin, egg-.  
 Albumose.  
 Amandin.  
 Avenalin.

Proteids. See:—

Bynedestin.  
 Bynin.  
 Casein.  
 Caseinogen.  
 Conglutin.  
 Corylin.  
 Deamidoalbumin.  
 Deamidoglutinpeptone.  
 Deamidopropeptone.  
 Deamidopeptone.  
 Denuclein.  
 Deuteroproteose.  
 Edestin.  
 Excelsin.  
 Gelatin.  
 Gliadin.  
 Globulin.  
 Globulin from malt.  
 Glutin peptones.  
 Gorgonin.  
 Heteroproteose.  
 Hordein.  
 Legumin.  
 Leucinimide.  
 Leucosin.  
 Myoproteid.  
 Peptones.  
 Phaselin.  
 Phaseolin.  
 Phycocyanin.  
 Propeptone.  
 Proteose.  
 Protoproteose from malt.  
 Ricin.  
 Serum albumin.  
 Tuberin.  
 Vitellin.

Protein substance, presence of, as a reserve material in plants (LOEW), A., ii, 58.

Proteose in barley (OSBORNE), A., i, 455.

in the pea and vetch (OSBORNE and CAMPBELL), A., i, 715.

presence of two forms of, in diastase (OSBORNE), A., i, 399.

Deuteroproteose from malt (OSBORNE and CAMPBELL), A., i, 714.

Heteroproteose from malt (OSBORNE and CAMPBELL), A., i, 714.

Protoproteose from malt (OSBORNE and CAMPBELL), A., i, 714.

Proteosomes, formation of, in partly dead leaves (DAIKUHARA), A., ii, 55.

connection of, with active albumin (LOEW), A., ii, 59.

action of ammonia on (LOEW), A., ii, 58.

detection of, in plants (LOEW), A., ii, 58.

- Proteus vulgaris*, inversion of cane sugar by (FERMI and MONTESANO), A., ii, 493.
- Protexin. See Leucodrin.
- Protocatechuic acid, oxidation of (BERTRAND), A., i, 534.
- bromo-, oxidation of (ZINCKE), A., i, 308.
- Protocatechuic aldehyde; its phenylhydrazones and oxime (WEGSCHEIDER), A., i, 612.
- Protogelatin, conversion of gelatin into (DASTRE and FLORESCO), A., i, 196.
- Protophyscihydrone, formula of (HESSE), A., i, 60.
- Protoprotease. See Protease.
- Proustite from New South Wales (LIVERSIDGE), A., ii, 658.
- Prunus pissardi*, dyes of (WEIGERT), A., i, 388.
- Pseudobrookite from Transylvania (FRENZEL), A., ii, 112.
- Psoromic acid in lichens, occurrence of (ZOFF), A., i, 104.
- Ptelea trifoliata*, arginine in (SCHULZE), A., ii, 383.
- Ptyalin, solubility of, in alcohol (DASTRE), A., i, 398.
- Pulegenic acid, ammonium salt, amide, nitrile, and hydrochloride of the methylic salt (WALLACH), A., i, 310.
- Pulegonitrile (WALLACH), A., i, 310.
- base obtained by the reduction of, and its carbamide (WALLACH), A., i, 310.
- iso*-Pulegol (TIEMANN and SCHMIDT), A., i, 383.
- Pulegone, constitution of (WALLACH), A., i, 310.
- 2-chloro- (VON BAEYER), A., i, 445.
- bisnitroso- (VON BAEYER), A., i, 445.
- isonitroso- (VON BAEYER), A., i, 445.
- iso*-Pulegone, oximes and semicarbazone from (TIEMANN and SCHMIDT), A., i, 383.
- Pulegoneamine and its hydrochloride, carbamide, and phenylcarbamide (WALLACH), A., i, 310.
- Pulegonedinitrosylic acid (VON BAEYER), A., i, 445.
- Pulegonedioximehydrate (VON BAEYER), A., i, 445.
- Pumpkin-seed cake. See Agricultural chemistry (Appendix).
- Pump, simple form of force (KREIDER), A., ii, 161.
- Purpurin, detection of, in wines (BELAR), A., ii, 630.
- Purpuroxanthin, acid compound of (PERKIN), T., 1441; P., 1896, 167.
- Pyrargyrite from Broken Hill, N.S.W. (SMITH), A., ii, 30.
- Pyrazole (CURTIUS), A., i, 339.
- Pyrazole series, isomerism in the (KNOBE), A., i, 321.
- Pyrazoline, action of bromine on (CURTIUS), A., i, 339.
- Pyrazolone and its hydrochloride and sodium salt (KNOBE), A., i, 260.
- 4-oxime and its silver salt (KNOBE), A., i, 260.
- phenylhydrazone and *p*-tolylhydrazone of (KNOBE), A., i, 260.
- 5-Pyrazolone-3-carboxylic acid (RUHEMANN), T., 1396.
- ethylic salt (RUHEMANN), T., 1394; P., 1896, 166.
- Pyrhydronone, tetrachloro- (ZINCKE and WIEDERHOLD), A., i, 502.
- Pyridine, constitution of (HOFMANN LECTURE), T., 723.
- magnetic rotatory power, &c., of (PERKIN), T., 1115, 1214, 1245.
- action of iodine on (PRESCOTT and TROWBRIDGE), A., i, 186.
- Pyridine cobaltous chloride (REIZENSTEIN), A., i, 316.
- tetraiodide (PRESCOTT and TROWBRIDGE), A., i, 186.
- hydrogen pentiodide (PRESCOTT and TROWBRIDGE), A., i, 186.
- mercuric hydroxide (PESCI), A., i, 388.
- nitrate (PESCI), A., i, 388.
- sulphate (PESCI), A., i, 388.
- mercurochloride (PESCI), A., i, 388.
- nickelous chloride (REIZENSTEIN), A., i, 316.
- peculiar platinochlorides of (WERNER), A., i, 464.
- Pyridine ethiodide (PRESCOTT), A., i, 316.
- ethyl triiodide (PRESCOTT and TROWBRIDGE), A., i, 186.
- methiodide (PRESCOTT), A., i, 316.
- action of iodine on (PRESCOTT and TROWBRIDGE), A., i, 186.
- methyl di-, tri-, and pent-iodide (PRESCOTT and TROWBRIDGE), A., i, 186.
- propiodide (PRESCOTT), A., i, 316.
- isopropiodide (PRESCOTT), A., i, 316.
- derivative of bromo- $\psi$ -cumenol and its hydrobromide. See Pseudocumenol.
- from casein (COHN), A., i, 658.

- Pyridine, dibromo-, preparation of (HOFMANN LECTURE), T., 723.  
*tribromo-*, formation of, by oxidation of tetrabromotropinine (WILLSTÄTTER), A., i, 709.
- Pyridineacetone, chloride and phenylhydrazide of (KNUTTEL), A., i, 497.
- Pyridineacetoxime, chloride of: its platinochloride and aurochloride (KNUTTEL), A., i, 497.  
 acetyl derivative of: its platinochloride and aurochloride (KNUTTEL), A., i, 497.
- Pyridine-3:4-dicarboxylic acid. See Cinchomeronic acid.
- Pyridine-3-sulphonic acid, preparation of, from pyridine (WEIDEL and MURMANN), A., i, 104.
- Pyriudone,  $\alpha\beta$ -dichloro- (ZINCKE and WEIDERHOLD), A., i, 501.
- Pyrites, nickeliferous, from Sudbury, Canada (GOODWIN), A., ii, 109.
- Pyrites. See Iron pyrites.
- Pyroamaric acid. See  $\beta\gamma$ -Diphenylbutyric acid.
- Pyrosaurite from Nordmark, Sweden (SJÖGREN), A., ii, 110.
- Pyrochlore from the Urals (CHRUSTSCHOFF), A., ii, 567.
- Pyrocatechin. See Catechol.
- Pyrocinchonic acid. See Dimethylmaleic acid.
- Pyrogallol, magnetic rotatory power, &c., of (PERKIN), T., 1127, 1185, 1240.  
 barium salt of (GODEFFROY), A., i, 337.  
*trichloro-*, and its triacetate (BIÉTRIX), A., i, 651.
- Pyrolevulinic acid (RAYMANN and ŠULC), A., i, 459.  
 action of sulphuric acid on (RAYMANN and ŠULC), A., i, 459.
- Pyromeride from Jersey, spherulites and matrix of (HYNDMAN and BONNEY), A., ii, 614.
- Pyrotartarimide, action of potassium hypobromite on (WEIDEL and ROITHNER), A., i, 470.
- Pyrotartaric acid (*methylsuccinic acid*), specific refractive power of (LADENBURG), A., i, 464.
- Pyrotartaric anhydride, refraction equivalent of (ANDERLINI), A., ii, 229.  
 magnetic rotatory power and relative density of (PERKIN), T., 1063, 1173, 1237.  
 reduction products of (FICHTER and HERBRAND), A., i, 463.
- Pyrotartaric nitrile (EULER), A., i, 145.
- Pyrotartarimide (*methylsuccinimide*), velocity of decomposition of, by hydrochloric acid (MIOLATI), A., ii, 242.
- Pyrotartaronaphthil (BOETTINGER), A., i, 443.
- Pyrotartaryl- $\alpha$ -naphthalide (BOETTINGER), A., i, 445.
- Pyroxanthine, dibromo-, tetrabromide of (VORLÄNDER and HOBOMM), A., i, 604.
- Pyrcxene. See Augite.
- Pyrrhoarsenite (SJÖGREN), A., ii, 113.
- Pyrrhotite from Hungary (PÁLFFY), A., ii, 657.  
 after cuprite from Russia (JEBE-MÉEFF), A., ii, 566.  
 artificial (BUCCA), A., ii, 306.  
 magnetic behaviour of (ABT), A., ii, 656.  
 nickeliferous, from Canada (HOFFMANN), A., ii, 191.  
 estimation of, in pyrites (CONE), A., ii, 543.
- Pyroline, isolation of, from coal-tar (HOFMANN LECTURE), T., 597.
- Pyruvic acid, condensation of, with paraformaldehyde (KALTWASSER), A., i, 670.  
 benzoyl derivative of hydrazone of (VON PECHMANN), A., i, 680.
- Pyruvic acid, allylic salt, action of aniline and phenylhydrazine on (SIMON), A., i, 85, 86.  
 amylic salt, condensation product of, with aniline (SIMON), A., i, 86.  
 active amylic salt, action of aniline on (SIMON), A., i, 85.  
 isoamylic salt, preparation and phenylhydrazone of (SIMON), A., i, 86.  
 action of aniline on (SIMON), A., i, 85.  
 condensation of, with aniline and *p*-toluidine (SIMON), A., i, 86.  
 benzylic salt and its phenylhydrazone (SIMON), A., i, 86.  
 action of aniline on (SIMON), A., i, 85, 86.  
 ethylic salt, action of aniline and *p*-toluidine on (SIMON), A., i, 85.  
 action of ethylic  $\beta$ -bromisovalerate on (PERKIN and THORPE), P., 1896, 156.
- para*-Pyruvic acid (MULDER), A., i, 281.
- Pyruvic- $\beta$ -naphthil (GASSMANN), A., i, 487.

## Q.

- Quartz in gypsum from Jena (ZSCHIMMER), A., ii, 528.  
 colour of (WEINSCHENK), A., ii, 654.  
 separation of, from other varieties of silica (LUNGE), A., ii, 275.
- Quartz-keratophyre from Wisconsin (WEIDMANN), A., ii, 314.
- Quassin, quassole from (MERCK), A., i, 59.
- Quassole from quassin (MERCK), A., i, 59.
- Querbracho colorado*, the colouring matter and other constituents of (PERKIN and GUNNELL), T., 1303; P., 1896, 158.
- Quercetin, colouring matter of *Crataegus oxyacantha* (PERKIN and HUMMEL), T., 1570; P., 1896, 186.  
 existence of, in *Cheiranthus cheiri* (PERKIN and HUMMEL), T., 1568; P., 1896, 185.  
 occurrence of, in outer skins of the bulb of the onion (PERKIN and HUMMEL), T., 1295; P., 1896, 144.  
 constitution of acid compounds of (PERKIN), T., 1444; P., 1896, 167.
- Quercetin hydrochloride, analysis of (PERKIN), T., 1441; P., 1896, 167.  
 monomethyl ether, existence of isorhametin, in *Cheiranthus cheiri*, and its acetyl derivatives (PERKIN and HUMMEL), T., 1569; P., 1896, 186.  
 tetramethyl ether, acid compound of (PERKIN), T., 1443; P., 1896, 167.
- Quercetin, dibromo-, non-formation of acid compounds of (PERKIN), T., 1443; P., 1896, 167.
- Quercetin-group of natural yellow colouring matters (PERKIN), T., 1441; P., 1896, 167.  
 means of distinguishing members of, of natural yellow dye-stuffs (PERKIN), T., 1445; P., 1896, 168.
- Quercitol, action of bromine water on (KILIANI and SCHÄFER), A., i, 586.  
 oxidation of, with potassium permanganate and nitric acid (KILIANI and SCHÄFER), A., i, 586.
- Quinacridine (NIEMENTOWSKI), A., i, 261.  
 probable isomeride of (NIEMENTOWSKI), A., i, 261.
- Quinaldine. See 2'-Methylquinoline.
- Quinazoline, 2'-chloro- (GABRIEL and STELZNER), A., i, 507.  
 4'-chloro- (GABRIEL and STELZNER), A., i, 507.
- Quinine (*chinine*), hydrolytic decomposition of (KOENIGS), A., i, 63.
- Quinethoil. See 3-Ethoxyquinoline.
- Quinamide and its salts (HIRSCH), A., i, 626.
- Quinine, attempts to synthesise (HOFMANN LECTURE), T., 603; P., 1893, 138.  
 basicity of, and behaviour of salts of, to various indicators (SALOMONSON), A., i, 450.  
 action of phosphorus pentachloride on (KOENIGS), A., i, 328.  
 as a developer (ACKERMANN), A., i, 513.  
 reduction of (LIPPMANN and FLEISSNER), A., i, 63.
- Quinine chlorohydrosulphate, nature of (GEORGES), A., i, 655.  
 sulphate, examination of (HESSE), A., ii, 550.
- Quinine, detection of (CARREZ), A., ii, 584.  
 examination of (KUBLI), A., ii, 550.  
 estimation of, volumetrically (SALOMONSON), A., i, 450; (ALLEN), A., ii, 584.  
 titration of, by iodine (KIPPENBERGER), A., ii, 682.
- Quinic acid, ethylic salt of (HIRSCH), A., i, 626.
- Quinol, effect of, on the freezing point of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 475.  
 potassium derivatives of (ASTRE), A., i, 18.  
 dithio-, preparation of (SNAPE), T., 100.
- Quinoldiantipyrene. (PATEIN and DUFAT), A., i, 188.
- Quinolphtalein: its imido-compound and dibenzoate (R. and H. MEYER), A., i, 174.
- Quinoline, isolation of, from coal-tar (HOFMANN LECTURE), T., 597.  
 magnetic rotatory power, &c., of (PERKIN), T., 1115, 1117, 1214, 1245.  
 action of cyanogen on (HOFMANN LECTURE), T., 650.
- Quinoline cobaltous chloride (REIZENSTEIN), A., i, 316.  
 mercuric hydroxide and salts (PESCI), A., i, 186, 187.  
 preparation of derivatives of (KNUEPFEL), A., i, 391.

- Quinoline, 1-amino-, and its acetyl derivative (CLAUS and SETZER), A., i, 498.
- 3-amino-, and its methiodide and acetyl and benzoyl derivatives (CLAUS and SCHNELL), A., i, 320.
- 4-amino-, and its acetyl derivative (CLAUS and SETZER), A., i, 498.
- 2 : 4-diamino-, and its salts (CLAUS and DEWITZ), A., i, 654.
- 2 : 3-dibromo-, and its platinochloride and methiodide (CLAUS), A., i, 254.
- 3 : 4-dibromo-, and its platinochloride and methiodide (CLAUS), A., i, 254.
- 1 : 2 : 3-tribromo-, and its hydrochloride and platinochloride (CLAUS), A., i, 254.
- 2 : 3 : 4-tribromo- (CLAUS), A., i, 255.
- 2 : 3 : 3'-tribromo-, and its platinochloride and methiodide (CLAUS), A., i, 255.
- 3 : 4 : 3'-tribromo-, and its platinochloride (CLAUS), A., i, 254.
- 2 : 3-bromamino- (CLAUS and SCHNELL), A., i, 320.
- 4 : 1-bromamino-, acetyl derivative of (CLAUS and SETZER), A., i, 498.
- 3 : 3'-bromamino- (CLAUS and SCHNELL), A., i, 319.
- 2 : 3-dibromamino- (CLAUS), A., i, 254.
- 2 : 4 : 1-dibromamino- (CLAUS and SETZER), A., i, 498.
- dibromo-3-amino- (CLAUS and SCHNELL), A., i, 320.
- 4 : 3' : 3-dibromamino-, and its hydrobromide (CLAUS and SCHNELL), A., i, 320.
- 1 : 3 : 4-dibromamino- (CLAUS and SETZER), A., i, 498.
- 2 : 3 : 4-dibromamino- (CLAUS), A., i, 255.
- 3' : 3-bromonitro-, and its methiodide (CLAUS and SCHNELL), A., i, 319.
- 3' : 1 : 3-bromodinitro- (CLAUS and HARTMANN), A., i, 392.
- 3' : 1 : 4-bromodinitro- (CLAUS and HARTMANN), A., i, 391.
- 3' : 2 : 4-bromodinitro- (CLAUS and HARTMANN), A., i, 392.
- 2 : 3 : 1-dibromonitro-, and its platinochloride (CLAUS), A., i, 254.
- 2 : 3 : 4-dibromonitro-, and its methiodide and platinochloride (CLAUS), A., i, 255.
- 3 : 4 : 1-dibromonitro-, and its platinochloride (CLAUS), A., i, 254.
- 2' : 4-chloronitro- (CLAUS and SETZER), A., i, 498.
- Quinoline, 1-nitro-, preparation of (CLAUS and SETZER), A., i, 498.
- 3-nitro-, hydrobromide and dibromide (CLAUS and SCHNELL), A., i, 319.
- 4-nitro-, preparation of (CLAUS and SETZER), A., i, 498.
- 1 : 3-dinitro- (CLAUS and HARTMANN), A., i, 392.
- 1 : 4-dinitro-, and its hydrobromide (CLAUS and HARTMANN), A., i, 391.
- 2 : 4-dinitro-, and its hydrochloride and platinochloride (CLAUS and HARTMANN), A., i, 392.
- 3 : 1-nitramino-, and its methiodide and platinochloride (CLAUS and HARTMANN), A., i, 392.
- 4 : 1-nitramino-, and its methiodide and platinochloride (CLAUS and HARTMANN), A., i, 391.
- 2 : 4 : 1-dinitramino- (CLAUS and DEWITZ), A., i, 654.
- iso-Quinoline,  $\alpha$ -iodo-, and its methiodide, platinochloride, dichromate, and picrate (EDINGER), A., i, 502.
- Quinoline-red, preparation of (HOFMANN LECTURE), T., 627.
- Quinoline-blue, composition of (HOFMANN LECTURE), T., 619.
- Quinolinephenazine, 1 : 2-dichloro- (ZINCKE and WIEDERHOLD), A., i, 502.
- 2 : 4-Quinolinequinone, 1 : 2-dichloro-, and its hydrochloride (ZINCKE and WIEDERHOLD), A., i, 501.
- 2'-Quinolylacetic acid and its platinochloride (EINHORN and SHERMAN), A., i, 61.
- methylic and ethylic salts of (EINHORN and SHERMAN), A., i, 61.
- 2'-Quinolylacrylamide (EINHORN and SHERMAN), A., i, 61.
- 2'-Quinolylacrylic acid (EINHORN and SHERMAN), A., i, 61.
- ethylic salt of (EINHORN and SHERMAN), A., i, 61.
- 2'-Quinolylglyceric acid and its aurochloride (EINHORN and SHERMAN), A., i, 61.
- ethylic and methylic salt of (EINHORN and SHERMAN), A., i, 61.
- 2'-Quinolylpropionamide (EINHORN and SHERMAN), A., i, 61.
- 2'-Quinolylpropionic acid and its platinochloride (EINHORN and SHERMAN), A., i, 61.
- 2'-Quinolylpropylic alcohol (EINHORN and SHERMAN), A., i, 61.
- Quinone, preparation of (HOFMANN LECTURE), T., 700.
- action of potassium hydroxide and ethoxide on (ASTRE), A., i, 153.

- Quinone, behaviour of, towards phenylhydrazine (MCPHERSON), A., i, 28.  
 condensation of, with thiophenol (TROEGER and EGGERT), A., i, 562.  
 potassium derivatives of (ASTRE), A., i, 18.  
 potassium hexoxide (ASTRE), A., i, 154.  
 dipotassium hexoxide (ASTRE), A., i, 154.  
 Quinone, *tetrachloro*-. See Chloranil.  
*hexachloro*-. (BARRAL), A., i, 91.  
 Quinonedimalonic acid, *dichloro*-, ethylic salt of (JACKSON and GRINDLEY), A., i, 19.  
 Quinonedinaphthylhemiacetal and its sodium salt (JACKSON and OENSLAGER), A., i, 294.  
 Quinonemonophenylbenzoylhydrazone, constitution, hydrolysis, and reduction of (MCPHERSON), A., i, 28.  
 Quinoneoxime, effect of, on the freezing point of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 475.  
*o*-Quinonedioxime (*benzene-o-dioxime*), and its anhydride (ZINCKE), A., i, 430.  
 Quinones, list of. See Ketones.  
 Quinonoid derivatives (ZINCKE), A., i, 214.  
 Quinoxaline, 2':3'-*dichloro*-. (HINSBERG and POLLAK), A., i, 394.  
 Quinoxalophenazine and its sulphate (HINSBERG and POLLAK), A., i, 394.  
 Quiroquite from Spain (NAVARRO), A., ii, 430.

## R.

- Racemic acid. See Tartaric acids.  
 Racemic compounds, theory of (WINTHER), A., ii, 140.  
 Racemism (TRAUBE), A., i, 526.  
 Raffinose, action of lead acetate on the rotatory power of (SVOBODA), A., i, 406.  
 Rape seeds, effect of chemical substances on germination of (SIGMUND), A., ii, 441.  
 Raptic acid, non-identity of, with oleic acid (ZELLNER), A., i, 593.  
 action of phosphorus triiodide on (ZELLNER), A., i, 592.  
 Rate of chemical change. See Velocity.  
 Rathite from the Binnenthal (BAUMHAUER), A., ii, 659.  
 Reaction of oxygen and hydrogen, conditions regulating the (GAUTIER and HÉLIER), A., ii, 416.  
 between hydrogen peroxide and hydriodic acid, velocity under varying conditions of the (HARCOURT and ESSON), A., ii, 238.  
 Reaction of the first order, a reversible (KÜSTER), A., ii, 158.  
 Reactions of the first order (intramolecular changes in oximes) (LEY), A., ii, 243.  
 of the second order (decomposition of acidimides by acids) (MIOLATI), A., ii, 242.  
 brought about by light (NAMIAS), A., ii, 459.  
 in gases, explanation of abnormal (STORCH), A., ii, 296.  
 polymeric, acceleration of, by acids (NOYES), A., ii, 470.  
 determination of the order of (NOYES and SCOTT), A., ii, 158.  
 Reactions, mixer for accelerating (MARKOWNIKOFF), A., ii, 297.  
 Refractive power. See Light.  
 Refractometer. See Light.  
 Rennin, action of (EDMUNDS), A., ii, 489.  
 presence of, in different parts of the body (EDMUNDS), A., ii, 489.  
 Resacetophenone, constitution of (GREGOR), A., i, 44.  
 ethyl ether (KOSTANECKI and TAMBOUR), A., i, 44.  
 diethyl ether (KOSTANECKI and TAMBOUR), A., i, 44.  
 Resacetophenone, bromo- (FRIEDLÄNDER and RÜDT), A., i, 607.  
*Reseda luteola*, luteolin, the colouring matter of (PERKIN), T., 206; P., 1896, 37.  
 Resens (BAUR), A., i, 57.  
 Resin. See Rosin (*colophony*).  
 Resin, jalap, estimation of (SPÆTH), A., ii, 508.  
 Resin from Sagapen (HOHENADEL), A., i, 53.  
 Resin, sandarac, constituents of (BALZER), A., i, 493.  
 Resins from Mecca balsam (BAUR), A., i, 58.  
 Resorcinol, magnetic rotatory power, &c., of (PERKIN), T., 1084, 1127, 1130, 1239.  
 heat of solution of, in water and ethylic alcohol (SPEYERS), A., ii, 411.  
 freezing points of dilute solutions of (WILDERMANN), A., ii, 351.  
 Resorcinol in red grapes (SCSTEGNI), A., ii, 123.  
 effect of, on the freezing point of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 475.  
 action of, on ammonium hydrogen-*o*-sulpho-*p*-toluate (JONES), A., i, 50.



- Resorcinol, condensation of, with chloral (HEWITT and POPE), T., 1265; 1896, 150.  
 condensation of, with chloral hydrate (HEWITT and POPE), T., 1266; P., 1896, 150.  
 condensation of, with phthalic chloride (PAWLEWSKI), A., i, 50.
- Resorcinol, dibromo-, diethyl ether (JACKSON and DUNLAP), A., i, 355.  
 tribromo- (JACKSON and DUNLAP), A., i, 356.  
 diethyl ether (JACKSON and DUNLAP), A., i, 355, 356.  
 sodium derivative of (JACKSON and DUNLAP), A., i, 355.  
 bromodinitro- (JACKSON and DUNLAP), A., i, 355.  
 tribromonitro-, diacetate (JACKSON and DUNLAP), A., i, 355.  
 diethyl ether (JACKSON and CALVERT), A., i, 473.  
 trichloro-, action of phosphorus pentachloride on (ZAHARIA), A., i, 646.  
 compound of, with nitrosodimethylaniline. See Dimethylaniline.
- dinitro-, diethyl ether (JACKSON and DUNLAP), A., i, 355.  
 trinitro- (HOHENADEL), A., i, 58.  
 behaviour of ethyl ether of, towards hydrazine hydrate (PURGOTI), A., i, 363.  
 dioxime, effect of, on the freezing points of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 475.  
 oxime, effect of, on the freezing points of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 475.  
 thio- (VOSWINKEL), A., i, 379.  
 dithio-, preparation of (SNAPE), T., 100.
- Resorcinolantipyrene (PATEIN and DUBAU), A., i, 188.
- Respiration, cutaneous, in the frog (REID), A., ii, 42.  
 of certain plants (ZIEGENBEIN), A., ii, 265.  
 of plants, effect of abundant application of nitrogen on (MÜLLER), A., ii, 54.  
 of seeds, influence of laccase on (REY-PAILHADE), A., ii, 327.
- Respiratory exchange of inhabitants of the tropics (EIJKMAN), A., ii, 661.  
 in marine invertebrates (VERNON), A., ii, 195.
- Respiratory movements, relation of blood-gases to (FILEHNE and KIONKA), A., ii, 118.
- Retene, fluorescence of gaseous (WIEDEMANN and SCHMIDT), A., ii, 86.
- Retzian from Nordmark, Sweden (SJÖGREN), A., ii, 35.
- Reunil, identity of, with rhodinol (ERDMANN and HUTH), A., i, 198.  
 individuality of (HESSI), A., i, 382.
- Rhamnazin, acid compound of (PERKIN), T., 1441; P., 1896, 167.
- iso-Rhamnetin, the yellow colouring matter in *Cheiranthus cheiri* (PERKIN and HUMMEL), T., 1569; P., 1896, 186.
- Rhamnohexonic acid (FISCHER), A., i, 526.
- iso-Rhamnolactone, oxidation of (FISCHER and HERBORN), A., i, 587.
- Rhammonic acid, action of pyridine on (FISCHER and HERBORN), A., i, 587.  
 oxidation of (FISCHER and HERBORN), A., i, 588.  
 brucine salt (FISCHER and HERBORN), A., i, 587.
- iso-Rhammonic acid (FISCHER and HERBORN), A., i, 587.  
 phenylhydrazide (FISCHER and HERBORN), A., i, 587.  
 brucine salt (FISCHER and HERBORN), A., i, 587.  
 lactone of, reduction of (FISCHER and HERBORN), A., i, 587.
- Rhamnosamine methylic alcoholate (DE BRUYN and VAN LEENT), A., i, 119.
- Rhamnose, crystallised anhydrous (FISCHER), A., i, 272, 273.  
 rotatory power of dissolved and super-fused (GERNEZ), A., ii, 287.  
 oxidation of (FISCHER and HERBORN), A., i, 588.  
 action of bromine water on (FISCHER and HERBORN), A., i, 587.
- Rhamnose- $\alpha$ -allylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Rhamnose- $\alpha$ -amylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Rhamnose- $\alpha$ -benzylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Rhamnosebenzylmercaptal (LAWRENCE), A., i, 272.
- Rhamnose-ethylen-mercaptal (LAWRENCE), A., i, 272.
- Rhamnose- $\alpha$ -ethylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Rhamnosaphthylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.

- iso*-Rhamnose (FISCHER and HERBORN), A., i, 587.  
 action of dilute hydrochloric acid on (FISCHER and HERBORN), A., i, 588.  
 action of hydrogen cyanide on (FISCHER and HERBORN), A., i, 588.  
 phenylhydrazone and osazone of (FISCHER and HERBORN), A., i, 588.
- iso*-Rhamnose-ethylmercaptal (FISCHER and HERBORN), A., i, 588.
- Rhodamine obtained from hemimellitic anhydride and *m*-dimethylamino-phenol (GRAEBE and LEONHARDT), A., i, 438.
- Rhodinaldehyde (BARBIER and BOUVEAULT), A., i, 446  
 constitution of (BARBIER and BOUVEAULT), A., i, 492.  
 semicarbazone, and oxime of (BARBIER and BOUVEAULT), A., i, 491.
- Rhodinaldoxime, conversion of, into menthoneoxime (BARBIER and BOUVEAULT), A., i, 491.
- Rhodinic acid: its rhodinylic salt (BARBIER and BOUVEAULT), A., i, 446.
- Rhodinol, identity of, with citronellol (TIEMANN and SCHMIDT), A., i, 384.  
 oxidation of and constitution of (TIEMANN and SCHMIDT), A., i, 384;  
 (BARBIER and BOUVEAULT), A., i, 446.
- acetate (BARBIER and BOUVEAULT), A., i, 446.  
 action of dibasic acids on (ERDMANN and HUTH), A., i, 198.  
 compound of, with camphoric acid (ERDMANN and HUTH), A., i, 198.  
 diphenylurethane (ERDMANN and HUTH), A., i, 198.
- Rhodium, rate of diffusion of, through lead (ROBERTS-AUSTEN), A., ii, 592.  
 solubility of carbon in (MOISSAN), A., ii, 609.
- Rhodophosphate from Sweden (IGELSTRÖM), A., ii, 308.
- Rhodusite from Bosnia (FOULLON), A., ii, 483.
- Rhubarb stems and wine, amount of acid in (OTTO), A., ii, 539.
- Rhus coriaria*, the colouring matter of (PERKIN and ALLEN), T., 1299; P., 1896, 157.  
*typhina*, red dye of (WEIGERT), A., i, 388.
- Rhyolite from Jersey, spherulites and matrix of (HYNDMAN and BONNEY), A., ii, 614.
- Rice imported into France, composition of (BALLAND), A., ii, 212.
- Richterite (SJÖGREN), A., ii, 115.
- Ricin, poisonous effect of, on algæ and infusoria (BOKORNY), A., ii, 669.
- Ricinin, preparation of (SOAVE), A., i, 386.  
 detection of (SOAVE), A., i, 386.
- Ricinin, bromo- (SOAVE), A., i, 387.  
 chloro- (SOAVE), A., i, 387.
- Ricinic acid and salts (SOAVE), A., i, 387.  
 bromo- (SOAVE), A., i, 387.
- Ricinus communis*, edestin, the proteid in (OSBORNE and CAMPBELL), A., i, 716.
- Rickets, elimination of calcium and magnesium in (DE KONINCK), A., ii, 50.
- Riebeckite from Ireland (SOLLAS), A., ii, 310.
- Ring compounds, nomenclature of (RICHTER), A., i, 349.
- Röntgen rays. See Light.
- Rosaniline (VON GEORGIEVICS), A., i, 442.  
 discovery of (HOFMANN LECTURE), T., 609; P., 1893, 138.  
 constitution of (HOFMANN LECTURE), T., 613, 689.  
 coloured base of (VON GEORGIEVICS), A., i, 690.  
 action of alkyl iodides on (HOFMANN LECTURE), T., 616.  
 detection of, in wines (BELAR), A., ii, 630.  
 Magenta, distinction of, from "acid magenta" (CAZENEUVE), A., ii, 630.
- p*-Rosaniline, colourless and coloured forms of (VON GEORGIEVICS), A., i, 441.
- Rosaniline dyes, action of sunlight on (OGLOBIN), A., i, 649.
- Rosanilines, acid (PRUD'HOMME), A., i, 376.
- Roseine. See Rosaniline.
- Rosemary oil, analysis of (HIRSCHSOHN), A., ii, 223.
- Roses, oil of (BARBIER and BOUVEAULT), A., i, 446.  
 composition of (BERTRAM and GILDMERSTER), A., i, 381.
- Rosin (*colophony*), detection of, in guaiacum resin, tolu balsam, and copaiba balsam (HIRSCHSOHN), A., ii, 508.
- Rosin oil, estimation of, in mineral oil (KLIMONT), A., ii, 224.
- Rosinduline, acetyl derivative of (KEHRMANN and HERTZ), A., i, 509.

Rosinduline, carbonate (KEHRMANN and HERTZ), A., i, 509.  
 hydroxide, formula of (FISCHER and HEPP), A., i, 323.  
 hydrate (KEHRMANN and HERTZ), A., i, 509.  
*iso*-Rosinduline and its hydrochloride, platinochloride, and nitrate (KEHRMANN and HERTZ), A., i, 510.  
 hydroxazonium base of, and its sulphate, chloride, and platinochloride (KEHRMANN and HERTZ), A., i, 510.  
 Rosolic acid, detection of, in wines (BELAR), A., ii, 630.  
 Rosotoluidine (BARSZCZOWSKY), A., i, 358.  
 Rotation, magnetic. See Light, magnetic rotatory power.  
 Rotatory power. See Light.  
 Royal College of Chemistry, history of (HOFMANN LECTURE), T., 580.  
 Rubidium chlorate, electrolytic conductivity of solutions of (BAUR), A., ii, 144.  
 ferrate (MOESER), A., ii, 251.  
 permanganate, molecular weight of solid (FOCK), A., ii, 160.  
 sulphate, constitution of double salts containing (TUTTON), T., 519; P., 1896, 71.  
 cadmium sulphate, density and optical behaviour of (TUTTON), T., 445.  
 cobalt sulphate, density and optical behaviour of (TUTTON), T., 424.  
 copper sulphate, density and optical behaviour of (TUTTON), T., 437.  
 ferrous sulphate, density and optical behaviour of (TUTTON), T., 391.  
 magnesium sulphate, density and optical behaviour of (TUTTON), T., 361.  
 manganous sulphate, density and optical behaviour of (TUTTON), T., 399.  
 nickel sulphate, density and optical behaviour of (TUTTON), T., 411.  
 vanadium alum (PICCINI), A., ii, 305.  
 zinc sulphate, density and optical behaviour of (TUTTON), T., 379.  
 Ruby. See Corundum.  
*Rumex nepalensis* (Wall), constituents of (HESSE), A., i, 573  
 constituents of root of (HESSE), A., i, 315.  
 Rumicin (HESSE), A., i, 573.  
*Russula cyanoxantha* and *R. furcata*, oxidising ferment of (BOURQUELOT and BERTRAND), A., ii, 383.  
 tyrosinase, the soluble ferment in (BERTRAND), A., ii, 571.

Ruthenium nitrosochloride, action of reducing agents on (BRIZARD), A., ii, 478.  
 double salts containing silver and (BRIZARD), A., ii, 566.  
 estimation of, electrolytically (SMITH and HARRIS), A., ii, 223.  
 Rye, effect of chemical substances on germination of seeds of (SIGMUND), A., ii, 441.  
 meal, proteids from (OSBORNE), A., i, 399; (KJELDAHL), A., i, 583.

## S.

Saccharic acid, velocity of lactone formation of (HJELT), A., i, 597.  
 acid potassium salt, action of formaldehyde and hydrochloric acid on (HENNEBERG and TOLLENS), A., i, 645.  
*iso*-Saccharin, methylene derivative (HENNEBERG and TOLLENS), A., i, 645.  
 action of formaldehyde and hydrochloric acid on (HENNEBERG and TOLLENS), A., i, 645.  
 Saccharinic acid (DE BRUYN and VAN EKENSTEIN), A., i, 116.  
*Saccharomyces apiculatus*, indifference of, towards cane sugar (FISCHER and LINDNER), A., i, 196.  
 reducing power of (NASTUKOFF), A., ii, 202.  
*cerevisiæ*, enzymes in (BAU), A., i, 453.  
*pastorinus*, reducing power of (NASTUKOFF), A., ii, 202.  
 Safflorite from Nordmark, Sweden (SJÖGREN), A., ii, 109.  
 Safranine, discovery of (HOFMANN LECTURE), T., 625.  
 detection of, in wines (BELAR), A., ii, 630.  
 Safranines, constitution of (BROMBERG), A., i, 580; (FISCHER), A., i, 628.  
 Safranol, formation of, from phenosafranine (FISCHER and HEPP), A., i, 50.  
 Safrrole, synthesis and constitution of (MOUREU), A., i, 477.  
 α-nitrosite, preparation of (ANGELI), A., i, 295.  
*iso*-Safrrole, synthesis of (MELDOLA, WOOLCOTT, and WRAY), T., 1321; (MOUREU), A., i, 477.  
 constitution of (MOUREU), A., i, 477.  
 nitrosite (ANGELI and RIMIN), A., i, 477.

- iso*-Safrole nitrosite, compound of, with piperidine (ANGELI and RIMINI), A., i, 477.  
 compound obtained from, by heating with piperidine (ANGELI and RIMINI), A., i, 477.
- Sagapen (HOHENADEL), A., i, 58.
- Sagaresinotannol and its acetyl and benzoyl derivatives (HOHENADEL), A., i, 58.
- Salicin, hydrolysis of, by acids (NOYES and HALL), A., ii, 159.  
 decomposition of, by emulsin (TAMMANN), A., ii, 244.  
 detection of (FORMANEK), A., ii, 401.
- Salicylaldehyde, condensation of, with acetophenone (BABLICH and KOSTANECKI), A., i, 239.  
 magnetic rotatory power, &c., of (PERKIN), T., 1126, 1200, 1243.  
 compound of, with aluminium chloride (PERRIER), A., i, 354.  
 condensation of, with acetone (CORNELSON and KOSTANECKI), A., i, 240.  
 condensation of, with *o*-aminobenzylamine (BUSCH), A., i, 508.
- Salicylamide, decomposition of, with sodium hypochlorite (CONINCK), A., i, 364.  
 preparation of aniline from (HOFMANN LECTURE), T., 647.
- Salicylic acid (DE CONINCK), A., i, 473.  
 in *Polypala* root (SCHNEEGANS), A., ii, 328.  
 absorption by silk of dilute (WALKER and APLEYARD), T., 1346; P., 1896, 147.  
 action of nitrous acid on (LANDSTEINER), A., i, 584.  
 compound of, with antipyrine (PATEIN and DUFAY), A., i, 650.
- Salicylic acid, sodium salt, water of crystallization of (ROMYN), A., i, 550.  
 estimation of the sodium salt of, in presence of "ichthyol" (HOFMAN), A., ii, 549.
- Salicylic acid, *p*-acetaminophenylic salt, detection of (DRAGENDORFF), A., ii, 230.  
 ethylic salt, rotatory power, &c., of (PERKIN), T., 1126, 1127, 1176, 1238.  
 melting point of the (v. SCHNEIDER), A., ii, 290.  
 molecular volume of, in organic solvents (NICOL), T., 143; P., 1895, 237.  
 benzoic derivative of (LIMPRICHT), A., i, 435.
- Salicylic acid, guaiacol salt, detection of (DRAGENDORFF), A., ii, 278.  
 methylic salt, magnetic rotatory powers, &c., of the (PERKIN), T., 1126, 1127, 1176, 1238.  
 compound of, with aluminium chloride (PERRIER), A., i, 354.  
 in *Polygala* root (SCHNEEGANS), A., ii, 328.  
 $\alpha$ -naphthyllic salt, detection of (DRAGENDORFF), A., ii, 279.  
 $\beta$ -naphthyllic salt, detection of (DRAGENDORFF), A., ii, 279.  
 phenylic salt, compound of, with aluminium chloride (PERRIER), A., i, 354.  
 tolylic salts, detection of (DRAGENDORFF), A., ii, 280.
- Salicylic acid, detection of, in beer (SCHORPP), A., ii, 227.
- Salicylic acid, thio-, methylic salt (VORWINKEL), A., i, 378.
- Saligenin, compound of, with antipyrine (PATEIN and DUFAY), A., i, 651.
- Saliva of dog and horse, absence of thiocyanates in (MUNK), A., ii, 50.
- Salivary glands, effects of extirpation of (SCHAFER and MOORE), A., ii, 438.
- Salmine (KOSSEL), A., i, 582.
- Salmon, protamine from spermatazoa of (KOSSEL), A., i, 582.
- Salt deposits of Argentina (SCHICKENDANTZ), A., ii, 480.
- Salts, action of metallic, on the lactic fermentation (CHASSEVANT), A., ii, 122.  
 ethereal, action of hydrazine on (CURTIUS), A., i, 339.  
 poisonous effect of various, on algae and infusoria (BOKORNY), A., ii, 662.
- Salvadorite from Chili (HERZ), A., ii, 368.
- Samarium group, a new element of the (DEMARÇAY), A., ii, 475.
- Samaraskite from the Urals (CHRUSTSCHOFF), A., ii, 567.
- Sandaracolic acid: its salts and acetyl and benzoyl derivatives (BALZER), A., i, 493.
- Sandstone, Berea grit, analyses of (MABERY and DUNN), A., i, 329.
- Santalenic acid (CHAPMAN and BURGESS), P., 1896, 140.
- Santalal, oxidation of (CHAPMAN and BURGESS), P., 1896, 140.
- Santal-wood oil, analysis of (PARRY), A., ii, 400.
- Santonin acid, specific rotation of (ANDREOCCI), A., i, 182.  
 mono- and di-acetyl derivatives of (FRANCESCONI), A., i, 377.

- iso*-Santonin acid and its methylic and ethylic salts (FRANCESCO), A., i, 378.
- meta*-Santonin acid, and its oxime and acetyl derivative (FRANCESCO), A., i, 378.
- ethylic salt of, and its oxime (FRANCESCO), A., i, 378.
- Santonide (FRANCESCO), A., i, 378.
- Santonin, specific rotation of (ANDREOCCI), A., i, 182.
- reduction of (ANDREOCCI), A., i, 183.
- meta*-Santonin (*iso*-santonin) and its oxime (FRANCESCO), A., i, 377.
- l*-Santonous acid: its methylic and ethylic salts and benzoyl derivative (ANDREOCCI), A., i, 184.
- $\alpha$ -bromo-, and its ethylic salt (ANDREOCCI), A., i, 184.
- sodio-, ethylic salt of (ANDREOCCI), A., i, 184.
- Santonous acid, racemic, methylic and ethylic salts of the benzoyl derivative of (ANDREOCCI), A., i, 184.
- $\alpha$ -bromo-, and its ethylic salt (ANDREOCCI), A., i, 185.
- iso*-Santonous acid, identity of racemic santonous acid and (ANDREOCCI), A., i, 184.
- Santonous acids, fusion of, with potash, and formulæ of (ANDREOCCI), A., i, 185.
- Saps of certain trees, constituent of (HÉBERT), A., ii, 494.
- Sartorite from Binnenthal (BAUMHAUER), A., ii, 109.
- Scamminolic acid (KROMER), A., i, 386.
- Scammonic acid and its salts (KROMER), A., i, 385.
- Scammonin, identity of, with jalapin and properties of (KROMER), A., i, 385.
- Scapolite from Arizona (MOSES), A., ii, 661.
- from Lombardy (SALOMON), A., ii, 433.
- Scheelite from New South Wales (LIVERSIDGE), A., ii, 658.
- from Quebec (HOFFMANN), A., ii, 191.
- Schulzenite from Chili? (MARTENS), A., ii, 529.
- Scilla maritima*, fermentation of (RIVIÈRE and BAILHACHE), A., ii, 203.
- Scolecite from Colorado (EAKINS), A., ii, 39.
- from Thuringia (FROMME), A., ii, 370.
- Scopolamine, occurrence of (MERCK), A., i, 65.
- nature of (SCHMIDT), A., i, 712.
- Scopolamine and its salts, properties of (LUBOLDT), A., i, 514.
- a new alkaloid in commercial (HESSE), A., i, 656.
- Scopoleine of tropic acid, and its acetyl, benzoyl, and cinnamoyl derivatives (MERCK), A., i, 65.
- Scopolia atropoides*, scopolamine in (MERCK), A., i, 65.
- japonica*, scopolamine in (MERCK), A., i, 65.
- Scopoligenine and its salts and nitroso-derivative (LUBOLDT), A., i, 515.
- Scopoline and its salts (LUBOLDT), A., i, 515.
- Sebacic acid from the oxidation of dehydroundecylenic acid (KRAFFT), A., i, 665.
- Secale. See Agricultural chemistry. (Appendix.)
- Secretion, causes of, in the kidney (TAMMANN), A., ii, 618.
- from trachea, action of drugs on (CALVERT), A., i, 667.
- Seeds, effect of alkaloids on the germination of (Mosso), A., ii, 326.
- ungueko*, from l'Sano, fatty acids from (HÉBERT), A., i, 638.
- occurrence of phyllothon and laccase in germinating (REY-PAILHADE), A., ii, 326.
- phosphorised constituent of plant (SCHULZE and WINTERSTEIN), A., i, 516.
- Seelandite from Carinthia (BRUNLECHNER), A., ii, 256.
- Selenanthrene dioxide. See Diphenylene diselenoxide.
- Selenium:—
- Hydrogen selenide, formation and dissociation of (PÉLABON), A., ii, 96.
- heat of formation of (PÉLABON), A., ii, 96.
- action of carbonyl chloride on (BESSON), A., ii, 359.
- Selenic acid, preparation of (METZNER), A., ii, 642.
- reduction of, by hydrochloric acid and by potassium bromide (GOOCH and SCOVILLE; GOOCH and EVANS), A., ii, 125.
- reduction of, by hydriodic acid (GOOCH and REYNOLDS), A., ii, 124.
- estimation of (GOOCH and PEIRCE), A., ii, 334.
- Selenious acid, reduction of, by hydriodic acid (GOOCH and REYNOLDS), A., ii, 124.
- estimation of (GOOCH and PEIRCE), A., ii, 334.

- Selenium, detection of arsenic in the presence of (DAWYDOW), A., ii, 219.  
 estimation of, gravimetrically (PEIRCE), A., ii, 673.
- Selenodiacetic acid, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- Semianiline. See Phenylenediamine.
- Semicarbazine (CURTIUS), A., i, 340.  
 preparation of (THIELE and HEUSER), A., i, 208.
- hydrochloride (CURTIUS and HEIDENREICH), A., i, 143.
- Seminaphthalidine. See Naphthylendiamine.
- Senarmontite from Sardinia (LOVISATO), A., ii, 183.
- Sericite from Bohemia (HIBSCH), A., ii, 534.  
 from British Columbia (HOFFMANN), A., ii, 258.
- Serpierite from Laurion (FRENZEL), A., ii, 111.
- Serpentine, origin of (KONINCK), A., ii, 481.  
 from Zermatt (ASTON and BONNEY), A., ii, 612.  
 after amphibolite from New South Wales (JAQUET), A., ii, 534.  
 action of dry hydrogen chloride on (LINDER), A., ii, 369.  
 nickel-bearing, from Zermatt (ASTON and BONNEY), A., ii, 611.
- Serum, method of rapidly desiccating (MARTIN), A., ii, 263.
- Serum-albumin. See Albumin.
- Sesame oil, oxidisability of (BISHOP), A., ii, 399.
- Sesquiterpene from oil of lignaloes (BARBIER and BOUVEAULT), A., i, 55.
- $C_{15}H_{24}$ , from Charas (WOOD, SPIVEY, and EASTERFIELD), T., 542; P., 1896, 76.
- Setaria german*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Sheep. See Agricultural chemistry. (Appendix.)
- Shonkinite from Montana (WEED and PIRSSON), A., ii, 192.
- Silicate rocks, barium and strontium in (HILLEBRAND), A., ii, 191.
- Silicon, crystallised (DE CHALMOT), A., ii, 560.  
 action of, on metals (VIGOUROUX), A., i, 600.  
 action of, on silver at high temperatures (MOISSAN), A., ii, 174.
- Silicon tetrachloride, action of potassium bromide on (SNAPE), A., ii, 641.
- Silicon tetrachloride, action of sodium and *p*-bromodimethylaniline on (COMBES), A., i, 417.
- Silicon chloroform, preparation of, from copper silicide and hydrogen chloride (COMBES), A., i, 416.  
 action of aniline on (COMBES), A., i, 416.  
 action of sodium and *p*-bromodimethylaniline on (COMBES), A., i, 417.
- Hydrofluosilicic acid, estimation of, in hydrofluoric acid (STAHL), A., ii, 621.
- Silicon oxide (*silica*), an artificial form of (RINNE), A., ii, 368.  
 solubility of, in spring water (EDWARDS), A., ii, 246.
- Silicates, optical properties of earthy and compact (LACROIX), A., ii, 187.  
 a new mineral (CESÀRO), A., ii, 481.  
 containing fluorine, analysis of (REICH), A., ii, 531.  
 decomposition of, by boric acid (JANNASCH), A., ii, 219; (JANNASCH and HEIDENREICH), A., ii, 576.  
 decomposition of, by hydrofluoric acid (ALLEN), A., ii, 575.  
 estimation of water in (JANNASCH and WEINGARTEN), A., ii, 272.  
 separation of barium sulphate from (DE KONINGH), A., ii, 275.  
 separation of quartz from (LUKAE), A., ii, 275.
- Silicon, estimation of, in aluminium (MOISSAN), A., ii, 339.
- Silk, absorption of dilute acids by (WALKER and APPELYARD), T., 1334; P., 1896, 147.
- Silkworms, conversion of fat into glycogen in (COUVREUR), A., ii, 317.
- Sillimanite. See Fibrolite.
- Silver, extraction from lead by electrolysis of (TOMMASI), A., ii, 603.  
 silver chloride cell, temperature coefficient of the E.M.F. of (LOVÉN), A., ii, 635.  
 specific heat of (BARTOLI and STRACCIATI), A., ii, 145.  
 melting point of (HOLBORN and WIEN), A., ii, 87.  
 diffusion of, in mercury (ROBERTS-AUSTEN), P., 1896, 219.  
 solubility and rate of diffusion of, in mercury (HUMPHREYS), T., 247; P., 1896, 9.  
 rate of diffusion of, through tin (ROBERTS-AUSTEN), A., ii, 592.  
 action of nitric acid on (HIGLEY and DAVIS), A., ii, 560.

- Silver, action of, on silicon at high temperatures (MOISSAN), A., ii, 174.
- Silver-alloys with cadmium, zinc, tin, antimony, melting points of (GAUTIER), A., ii, 646.
- with gold, solubility of, in potassium cyanide solutions (MACLAURIN), T., 1276; P., 1896, 149.
- with aluminium (GAUTIER), A., ii, 602.
- Silver amidoferrocyanide (HOFMANN), A., i, 69.
- amidosulphonate (DIVERS and HAGA), T., 1647; P., 1896, 181.
- chloride, fused, electrolysis of (LORENZ), A., ii, 23.
- solubility of, in potassium cyanide (COHEN), A., ii, 167.
- solubility of, in sodium thiosulphate (COHEN), A., ii, 167.
- solubility of, in tellurium tetrachloride (KNIGHT), A., ii, 613.
- chlorate, action of nitric oxide on (AUDEN and FOWLER), A., ii, 172.
- chromate, action of nitric oxide on (AUDEN and FOWLER), A., ii, 172.
- hydroxide, electrochemical preparation of (LORENZ), A., ii, 647.
- sodium imidosulphonates (DIVERS and HAGA), T., 1626.
- iodate, action of nitric oxide on (AUDEN and FOWLER), A., ii, 172.
- mercuric iodide, decomposition of, by heat (BAUR), A., ii, 146.
- metaplumbate (GRÜTZNER), A., ii, 248.
- nitrate, electrical conductivity of solutions of, in acetone (ŁASZCZYŃSKI), A., ii, 555.
- electromotive force required to electrolyse (JAHN), A., ii, 230, 231.
- electrolysis of a solution of, in acetone (ŁASZCZYŃSKI), A., ii, 556.
- velocity of the reaction of ethylic iodide on, in alcoholic solution (CHIMINELLO), A., ii, 354.
- magnesium nitrite (SPIEGEL), A., ii, 360.
- ruthenium nitrosobromide and nitrosochloride (BRIZARD), A., ii, 566.
- oxide, reaction of hydrogen peroxide with (RIEGLER), A., ii, 471.
- action of nitric oxide on (AUDEN and FOWLER), A., ii, 172.
- peroxide (ŠULC), A., ii, 521.
- electrodes in galvanic cells (TOWER), A., ii, 142.
- peroxynitrate (MULDER and HERINGA), A., ii, 561.
- Silver permanganate, action of nitric oxide on (AUDEN and FOWLER), A., ii, 172.
- sodium pyrophosphate (STANGE), A., ii, 644.
- thiopyrophosphate (FERRAND), A., ii, 473.
- thiophosphite (FERRAND), A., ii, 418.
- silicide (CHALMOT), A., ii, 362.
- sulphate, product of the electrolysis of an ammoniacal solution of (GROSS), A., ii, 472.
- action of nitric oxide on (AUDEN and FOWLER), A., ii, 172.
- sulphide, action of infra-red rays on (RIGOLLOT), A., ii, 3.
- electrochemical preparation of (LORENZ), A., ii, 648.
- electrolytic experiments with (GROSS), A., ii, 521.
- physical change produced by gently heating (SPRING), A., ii, 290.
- double sulphide of gold and (MACLAURIN), T., 1271; P., 1896, 149.
- Silver allylide (KEISER), A., i, 458.
- cyanide, compounds of, with cyanides of the alkalis and alkaline earths (VARET), A., i, 633.
- cyaniform (SCHMIDTMANN), A., i, 458.
- Silver, detection of, microchemically (TRAUBE), A., ii, 578.
- estimation of, by Gay-Lussac's method (HOITSEMA), A., ii, 624.
- estimation of, in copper and copper matte (SMITH), A., ii, 76.
- separation of, from gold by volatilisation (RICHARDS), A., ii, 674.
- separation of, from zinc, nickel, and cobalt, electrolytically (SMITH and WALLACE), A., ii, 220.
- Skin, causes of respiratory exchange through the (REID), A., ii, 42.
- Skleroklase. See Sartorite.
- Slag, basic, crystalline constituents of (CARNOT), A., ii, 522.
- effect of, on germination (CLAUDEL and CROCHETELLE), A., ii, 442.
- estimation of citrate soluble phosphoric acid in (WAGNER), A., ii, 448; (PASSON), A., ii, 575; (DUBBERS), A., ii, 673.
- estimation of phosphorus in, by citrate process (MACH and PASSON), A., ii, 389.
- See also Agricultural chemistry (Appendix).
- Slag, tin, analysis of (BAILEY), A., ii, 451.
- Smaltite from Sardinia (LOVISATO), A., ii, 183.

- Soap, analysis of (SPAETH), A., ii, 400.  
 detection of, in lubricants (SCHWEITZER and LUNGWITZ), A., ii, 400.  
 estimation of phenol in (FRESENIUS and MAKIN), A., ii, 580.
- Soaps, behaviour of, as crystalloids and colloids (KRAFFT and WIGLOW), A., i, 80.  
 behaviour of, with water (KRAFFT and WIGLOW), A., i, 80.
- Sobreritritol, oxidation of, and its hydrate (GINZBERG), A., i, 446.
- Sobrerol, constitution of (TILDEN), T., 1014.  
 oxidation of, and its diacetate (GINZBERG), A., i, 446.  
 from trihydroxymethane (GINZBERG), A., i, 447.
- Sobrerone. See Pinol.
- Soda-berzellite from Långban, Sweden (SjÖGREN), A., ii, 113
- Sodalite from Canada, Urals, and Africa (LUQUER and VOLCKENING), A., ii, 37.  
 from Naples (FRANCO), A., ii, 313.  
 from North Scotland (TEALL and HORNE), A., ii, 117.  
 formula of (RAMMELSBURG), A., ii, 190.
- Soda-richterite from Långban, Sweden (SjÖGREN), A., ii, 114.
- Sodioacetoacetic acid. See Acetoacetic acid, sodio-.
- Sodioacetylacetone. See Acetylacetone, sodio-.
- Sodiccyanoform. See Cyanoform, sodio-.
- Sodiodesmotroposanionous acid. See Desmotroposanionous acid.
- Sodiodimethylpropanetricarboxylic acid. See Dimethylpropanetricarboxylic acid, sodio-.
- Sodioethylmalonic acid. See Ethylmalonic acid, sodio-.
- Sodiomalonic acid. See Malonic acid, sodio-.
- Sodiumethylmalonic acid. See Methylmalonic acid, sodio-.
- Sodioisopropylmalonic acid. See *iso*-Propylmalonic acid, sodio-.
- Sodioisopropylpropanetricarboxylic acid. See *iso*-Propylpropanetricarboxylic acid, sodio-.
- Sodiosanionous acid. See *l*-Santonous acid.
- Sodium, fluorescence spectrum of the vapour of (WIEDEMANN and SCHMIDT), A., ii, 346.  
 spark spectra of the salts of (DE GRAMONT), A., ii, 585.  
 presence of, in aluminium (MOISSAN), A., ii, 301.
- odium:—  
 Sodamide, synthesis with derivatives of (BLACHER), A., i, 33.
- odium salts, action of, on coagulation of milk and blood (RINGER), A., ii, 49.
- amidodisulphonate, preparation of, from sodium nitrite (DIVERS and HAGA), T., 1646.
- electrolytic conductivity of (SAKURAI), T., 1657; P., 1896, 181.
- selenoarsenate (SZARVASY), A., ii, 98.
- monoselenoarsenate (SZARVASY), A., ii, 98; (WEINLAND and RUMPF), A., ii, 473.
- oxyselenoarsenate (CLEVER and MUTHMANN), A., ii, 19.
- thioselenoarsenate (CLEVER and MUTHMANN), A., ii, 19.
- thioarsenate (McCAY), A., ii, 359.
- monothioarsenate (WEINLAND and RUMPF), A., ii, 473.
- dithioarsenate (WEINLAND and RUMPF), A., ii, 473.
- selenoarsenite (CLEVER and MUTHMANN), A., ii, 19.
- thioantimonate, preparation of (PREUNIER), A., ii, 565.
- bromide, thermochemical data of the compound of mercuric cyanide with (VARET), A., ii, 88.
- carbonate, formation of, in nature (TANATAR), A., ii, 419.  
 freezing points of dilute solutions of (LOOMIS), A., ii, 352.
- magnesium carbonate (SCHULTEN), A., ii, 610.  
 chlorocarbonate (SCHULTEN), A., ii, 610.
- chloride, heat of solution of (VON STACKELBERG), A., ii, 589.  
 freezing points of aqueous solutions of (PONSOT), A., ii, 412.  
 freezing points of dilute solutions of (ABEGG), A., ii, 588.  
 influence of pressure on the solubility in water of (VON STACKELBERG), A., ii, 638.  
 See also Agricultural chemistry (Appendix).
- hydrosulphide, estimation of, in presence of the sulphide (DOBRINER and SCHRANZ), A., ii, 672.
- hydroxide, heat of combination of, with water in the liquid and solid states (PICKERING), A., ii, 148.  
 vapour pressures of, in ethylic alcohol solution and the products obtained by evaporation (LESCOEUR), A., i, 114.  
 estimation of, in presence of the sulphide (DOBRINER and SCHRANZ), A., ii, 673.



- Sodium imidosulphonates (DIVERS and HAGA), T., 1621; P., 1896, 179.  
 barium imidosulphonates (DIVERS and HAGA), T., 1622.  
 calcium imidosulphonate (DIVERS and HAGA), T., 1626; P., 1896, 179.  
 mercury imidosulphonates (DIVERS and HAGA), T., 1629; P., 1896, 179.  
 silver imidosulphonate (DIVERS and HAGA), T., 1628.  
 strontium imidosulphonate (DIVERS and HAGA), T., 1625; P., 1896, 179.  
 iodide, thermochemical data of the action of mercuric cyanide on (VARET), A., ii, 148.  
 molybdate, electrolysis of (STAVENHAGEN and ENGELS), A., ii, 28.  
 iodomolybdate (CHRÉTIEN), A., ii, 651.  
 nitrate, thermal expansion of solutions of (DE LANNOY), A., ii, 233.  
 freezing points of dilute solutions of (LOOMIS), A., ii, 352.  
 effect of, on germination (CLAUDEL and CROCHETTELE), A., ii, 442.  
 See also Agricultural chemistry (Appendix).  
 peroxide, formation of, in the electrolysis of solutions of sodium hydroxide (RICHARZ and LONNES), A., ii, 586.  
 monohydrogen phosphate, dissociation pressure of hydrated (MÜLLER-ERZBACH), A., ii, 295.  
 hydrogen phosphate, hydrated, transition point of (BAUR), A., ii, 146.  
 silver pyrophosphate (STANGE), A., ii, 644.  
 triphosphate (STANGE), A., ii, 643.  
 copper triphosphates (STANGE), A., ii, 643.  
 ferrous triphosphate (STANGE), A., ii, 643.  
 lead triphosphate-pyrophosphate (STANGE), A., ii, 644.  
 manganese triphosphate (STANGE), A., ii, 643.  
 magnesium triphosphate (STANGE), A., ii, 643.  
 triphosphide and its ammonia compound (HUGOT), A., ii, 20.  
 persulphate, molecular formula of (LÖWENHERZ), A., ii, 149.  
 selenide (CLEVER and MUTHMANN), A., ii, 19.  
 sulphate, freezing points of dilute solutions of (LOOMIS), A., ii, 352.
- Sodium sulphate, hydrated, depression of the melting point of (LÖWENHERZ), A., ii, 149.  
 viscosity of aqueous solutions of (D'ARCY), T., 999; P., 1896, 104.  
 condition of, in solution (D'ARCY), T., 993; P., 1896, 104.  
 double salt of amidosulphonic acid and (DIVERS and HAGA), T., 1646.  
 sulphide, estimation of, in presence of the hydrosulphide (DOBRINER and SCHRANZ), A., ii, 672.  
 estimation of, in presence of the hydroxide (DOBRINER and SCHRANZ), A., ii, 673.  
 sulphides, oxidation of, by electrolysis (DURKEE), A., ii, 559.  
 thiosulphate, solubility of, in alcohol (PARMENTIER), A., ii, 359.  
 metatungstate, physical properties of (SOBOLEFF), A., ii, 478.  
 ammonium paratungstates (HALLOPEAN), A., ii, 652.  
 phosphododecatungstate, physical properties of (SOBOLEFF), A., ii, 477.
- Sodium aminoferrocyanide (HOFMANN), A., i, 518.  
 and the products of the action of nitrogen oxides on (HOFMANN), A., i, 69.  
 antimonimucate (HENDERSON and BARR), T., 1453; P., 1896, 168.  
 arsenite ferrocyanide (HOFMANN), A., i, 518.  
 chromothiocyanate, absorption spectrum of (MAGNANINI), A., ii, 345.  
 ethoxide, vapour pressures of, in ethylic alcohol solution, and the products obtained by evaporation (LESCŒUR), A., i, 113, 114.  
 Trisodium ferrocyanide (HOFMANN), A., i, 517.  
 action of ammonia on (HOFMANN), A., i, 518, 519.  
 action of nitric oxide or sodium nitrite on (HOFMANN), A., i, 518.
- Sodium molybdatitartrate (HENDERSON and BARR), T., 1455; P., 1896, 169.  
 nitroferrocyanide (*nitroprusside*), action of sodium amalgam, of gaseous ammonia, and of the ethylamines on (HOFMANN), A., i, 69, 70.  
 action of hydroxylamine and sodium hydroxide on (HOFMANN), A., i, 519.

- Sodium nitroferrocyanide (*nitroprusside*), action of phenylhydrazine on (HOFMANN), A., i, 517.  
 action of potassium cyanide on (HOFMANN), A., i, 519.  
 action of sodium arsenite on (HOFMANN), A., i, 518.  
 action of sodium hydrogen sulphite on (HOFMANN), A., i, 197.  
 nitrosoferrocyanide probably contains an oximido-group (HOFMANN), A., i, 269.  
 action of sodium hydroxide on (HOFMANN), A., i, 269.  
 oleate, boiling points of alcoholic solutions of (KRAFFT and STRUTZ), A., ii, 467.  
 running together and healing of crystals of (LEHMANN), A., ii, 160.  
 thiocyanate, electrical conductivity of solutions of, in acetone (LASZCZYNSKI), A., ii, 555.  
 electrolysis of a solution of, in acetone (LASZCZYNSKI), A., ii, 556.  
 tungstic tartrate (HENDERSON and BARR), T., 1456; P., 1896, 169.  
 Sodium, estimation of, in aluminium (MOISSAN), A., ii, 339.  
 estimation of, in fire-clays, manures, &c. (CAMERON), A., ii, 392.  
 Soja bean. See Agricultural chemistry (Appendix).  
 Soils. See Agricultural chemistry (Appendix).  
 Solid solutions. See Solutions, solid, and Heat, freezing point.  
 Solubility, mathematical treatment of (VAN LAAR), A., ii, 154.  
 at temperatures near the freezing point of the solvent (ARCTOWSKI), A., ii, 353.  
 influence of pressure on (VON STACKELBERG), A., ii, 637.  
 of substances under pressure, apparatus for determining the (WALTER), A., ii, 297.  
 of solids in gases (ARCTOWSKI), A., ii, 635.  
 of optically active substances in active solvents (TOLLOCZKO), A., ii, 636.  
 of optical isomerides (WALDEN), A., ii, 553.  
 of metals and alloys in mercury (HUMPHREYS), T., 1679; P., 1896, 220.  
 of mixed crystals (STORTENBEKER), A., ii, 13.  
 of ammonia in water at different temperatures (KONOWALOFF), A., ii, 351.  
 Solubility of carbonic anhydride in aniline (KONOWALOFF), A., ii, 351.  
 of ether in water, diminution produced by dissolving foreign substances in the ether of the (TOLLOCZKO), A., ii, 636.  
 of nitrous oxide in water and in solutions of salts (GORDON), A., ii, 154.  
 of silver and of copper in mercury (HUMPHREYS), T., 247; P., 1896, 9.  
 Solution, dynamical condition of molecules in (FITZGERALD), T., 902.  
 Solution theory of dyeing (WALKER and APPELBYARD), T., 1348; P., 1896, 147.  
 Solutions, mathematical treatment of the properties of (VAN LAAR), A., ii, 154.  
 potential difference between dilute (TOWER), A., ii, 586.  
 theory of the conductivity of dilute (BEKETOFF), A., ii, 348.  
 influence of pressure on the electrical conductivity of (TAMMANN), A., ii, 6.  
 specific heat of (TAMMANN), A., ii, 289.  
 determination of the freezing point of (WILDERMANN), A., ii, 589; (PONSOT), A., ii, 636.  
 density of very dilute (KOHLEBAUSCH), A., ii, 89.  
 adiabatic changes in the volumes of (ROGOYSKI and TAMMANN), A., ii, 514.  
 changes of volume during the formation of dilute (JONES), P., 1895, 179.  
 connection between pressure and the volume of (TAMMANN), A., ii, 13.  
 colloidal theory of (KRAFFT), A., ii, 468.  
 separation of pure ice from dilute (ZOPPELLARI), A., ii, 514.  
 condition of sodium sulphate in aqueous (D'ARCY), T., 993; P., 1896, 104.  
 of organic substances, magnetic rotatory power of (PERKIN), T., 1052; P., 1896, 122.  
 of salts, connection between concentration and conductivity of (VAN'T HOFF), A., ii, 145; (STORCH), A., ii, 288; (KOHLEBAUSCH), A., ii, 295.  
 thermal expansion of (DE LANNOY), A., ii, 233.  
 influence of, on water of crystallisation (BRAUNS), A., ii, 111.  
 influence of acids on the proteolytic digestion of (DASTRE), A., ii, 118.

- Solutions, solid, formation of, in freezing point determinations (GARRELLI), A., ii, 292.  
 formed by non-isomorphous substances (GARRELLI), A., ii, 469.  
 influence of the constitution of organic substances on the formation of (GARRELLI), A., ii, 157.  
 See also Heat, freezing point.
- Sophora angustifolia*, matrine, the alkaloid of (PLUGGE), A., i, 68.  
*speciosa*, occurrence of cytosine in, and other plants of same natural order (PLUGGE), A., ii, 61.
- Sorbic acid, discovery of (HOFMANN LECTURE), T., 698.
- Sorbinose, action of oxalic acid on (KIEMAYER), A., i, 145.
- Sorbitol, triacetone derivative of (SPEIER), A., i, 77.
- Sorbose, formation of, by microbes (BERTRAND), A., ii, 494.
- Sorboseamine (DE BRUYN and VAN LEENT), A., i, 586.
- Sorbus*, non-existence of sorbose in juice of various varieties of (BERTRAND), A., ii, 494.
- Sow-beans, alcoholic extract from (RITTHAUSEN), A., i, 416.
- Sparteine, constitution of (HERZIG and MEYER), A., i, 68.
- Specific gravity. See Density, relative.
- Specific inductive capacity. See Electricity, dielectric constant.
- Spectrum. See Light.
- Spergula arvensis*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Spermatozoa, separation of thymin from (KOSSEL), A., ii, 537.
- Sperryllite from Ontario (WALKER), A., ii, 366.
- Spessartite from Bodenmais, Bavaria (WEINSCHENK), A., ii, 310.
- Sphene from the Tyrol (SOLTMANN), A., ii, 374.
- Spherulites and matrix of rocks (HYNDMAN and BONNEY), A., ii, 614.
- Sphingosine (THUDICHUM), A., i, 400.
- Spirit, rectified, estimation of fusel oil in (GLASENAPP), A., ii, 277.
- Spirits, estimation of alcohols and volatile acids in (DUCLAUX), A., ii, 504.  
 estimation of fusel oil in (STUTZER and MAUL), A., ii, 504.  
 of wine, estimation of aldehyde in (MEDICUS), A., ii, 505.
- Spiraea ulmaria* *S. filipendula* and *S. salicifolia*, existence of gauthierase in (BOURQUELOT), A., ii, 540.
- Spirogyra*, detection of a proteid substance in cells of (LOBEY), A., ii, 58.
- Spodiosite from Nordmark, Sweden (NORDENSKIÖLD), A., ii, 255.
- Squash, edestin, the proteid in (OSBORNE and CAMPBELL), A., i, 716.
- Stachydrine and its constitution and derivatives (JAHNS), A., i, 712.
- Stachys tuberosa*, stachydrine from (JAHNS), A., i, 712.
- Stannic. } See under Tin.  
 Stannous. }
- Starch, formation of, from sugar in plants (GRÜSS), A., ii, 59.  
 potato-, hydrolysis of (BÜLOW), A., i, 273.  
 action of diastase on (ULRICH), A., i, 335; (MITTELMEIER), A., i, 336.  
 action of diastase on, in chloroform solution (BÜLOW), A., i, 274.  
 action of glycerol on (ZULKOWSKI and FRANZ), A., i, 120.  
 action of glyoxylic acid on (BOETTINGER), A., i, 5.  
 influence of, on metabolism (WICKER and WEISKE), A., ii, 535.  
 reducing power of, on ammoniacal silver nitrate (HENDERSON), T., 151; P., 1896, 9.
- Starch. See also Agricultural chemistry (Appendix).
- Starches. See also:—  
 Garlic, inulin of; Glycogen; Inulin; Jecorin; Starch.
- Stearamide (DIXON), T., 1602.
- Stearic acid from rapic acid (ZELLNER), A., i, 593.  
 from tarric or stearolic acids (ARNAUD), A., i, 522.  
 action of light on (RICHARDSON and FORTY), T., 1349.  
 action of sulphur on (ALTSCHUL), A., i, 126.  
 behaviour of alkali salts of, with water (KRAFFT and WIGLOW), A., i, 80.
- Stearic chloride, action of lead thiocyanate on (DIXON), T., 1599.
- Stearolic acid (BEHREND), A., i, 410.  
 action of phosphorus and hydriodic acid on (ARNAUD), A., i, 522.
- Stearoptene,  $C_{15}H_{26}O$ , from *Ledum palustre* (HJELT), A., i, 248.
- Stearoxylic acid, constitution of (SPIECKERMANN), A., i, 410.
- Stearylbenzide (DIXON), T., 1602, 1603
- ab*-Stearyl- $\alpha$ -naphthylthiocarbamide, and the action of silver nitrate on (DIXON), T., 1601; P., 1896, 223.

- Stearyl-*a*-naphthylurea** (DIXON), T., 1601; P., 1896, 223.
- a*-Stearyl-*v*-phenylbenzylthiourea**, and action of silver nitrate on (DIXON), T., 1602; P., 1896, 223.
- a*-Stearyl-*b*-phenylbenzylurea** (DIXON), T., 1602; P., 1896, 223.
- Stearylthiocarbimide** (DIXON), T., 1599. action of ammonia, benzylamine, benzylaniline, *a*-naphthylamine, phenylhydrazine, piperidine, *o*-toluidine, and *m*-xylydine on (DIXON), T., 1601, 1602.
- ab*-Stearyl-*o*-tolylthiocarbamide**, and the action of silver nitrate on (DIXON), T., 1600; P., 1896, 223.
- Stearyl-*o*-tolylurea** (DIXON), T., 1600; P., 1896, 223.
- ab*-Stearyl-*m*-xylythiocarbamide**, and the action of silver nitrate on (DIXON), T., 1600; P., 1896, 223.
- ab*-Stearyl-*m*-xylylurea** (DIXON), T., 1601; P., 1896, 223.
- Steel**. See Iron.
- Stephanite** from Broken Hill, N.S.W. (SMITH), A., ii, 30.
- Sterculia plantanifolia***, occurrence of arabin in the mucilage of (YOSHIMURA), A., ii, 60.
- Stereocaulic acid**, occurrence of (ZOFF), A., i, 104.
- Stereocaulon***, occurrence of atranoric acid in different species of (ZOFF), A., i, 103.
- Sternbergite** from Broken Hill, N.S.W. (SMITH), A., ii, 30.
- Stibethyl**. See Triethylstibine.
- Stibnite**, capillary (LASPEYRES and KAISER), A., ii, 660.
- from Queensland (LIVERSIDGE), A., ii, 657.
- Stilbene** (*diphenylethylene*), magnetic rotatory power, &c., of (PERKIN), T., 1150, 1225, 1246.
- α* and *β*-dibromide** (WISLICENUS and SEELER), A., i, 98.
- dibromide**, action of sodium benzene-sulphinate on (OTTO), A., i, 242.
- Stilbenedisulphonic acid**, nitroso-, reduction of, with ferrous sulphate, and oxidation of, with chromic acid (FISCHER and HEPP), A., i, 51.
- Sulbite** from the Caucasus (ZEMJAT-SCHENSKY), A., ii, 369.
- from Thuringia (FROMME), A., ii, 370.
- Stinkstone**. See Anthraconite.
- Stirrer**, autoneumatic (BREARLEY), A., ii, 671.
- Stomach**, digestion in (SjÖQUIST), A., ii, 484.
- Stomach**, causes of the formation of acid in (KOEPE), A., ii, 376.
- gases of human (WISSEL), A., ii, 196.
- Straw**, carbohydrates of barley- (CROSS, BEVAN, and SMITH), T., 1604; P., 1896, 174.
- Straws**, existence of xylose-formal in the cellulose of cereal- (CROSS, BEVAN, and SMITH), T., 815; P., 1896, 96.
- Stromeyerite** from Broken Hill, N.S.W. (SMITH), A., ii, 30.
- Strontianite** from Ontario (HOFFMANN), A., ii, 259.
- Strontium** in rocks (HILLEBRAND), A., ii, 191.
- compounds, purification of (SÖRENSEN), A., ii, 360.
- salts, influence of, on blood coagulation (HORNE), A., ii, 437.
- bromide, thermochemical data of the compound of mercuric cyanide and (VARET), A., ii, 88.
- oxybromide, thermochemical data of (TASSILLY), A., ii, 465.
- imidosulphonates (DIVERS and HAGA), T., 1622; P., 1896, 179.
- iodide, hydrated, thermochemical data of (TASSILLY), A., ii, 350.
- thermochemical data of the action of mercuric cyanide on (VARET), A., ii, 148.
- niobate (LARSSON), A., ii, 564.
- nitrate, thermal expansion of solutions of (DE LANNY), A., ii, 233.
- oxide (*strontia*), crystallised (BRÜGELMANN), A., ii, 167.
- Strontium**, estimation of, volumetrically, by alkalis (RUOSS), A., ii, 500.
- separation of calcium and barium from (DUPASQUIER), A., ii, 450.
- Strophanthus***, a glucoside from species of (FRASER and TILLIE), A., i, 386.
- hispidus*** seed oil, analysis of (MJOEN), A., ii, 506.
- Strychnine**, effect of, on the germination seeds (MOSSO), A., ii, 326.
- effect of, on plant development (OTTO), A., ii, 211.
- sulphur compound of (HOFMANN LECTURE), T., 719.
- Strychnine**, detection of (MANKIEWICZ), A., ii, 344; (FORMÁNEK), A., ii, 401.
- detection of, in corpses (SPAETH), A., ii, 508.
- estimation of nitrogen in, by the absolute method (DUNSTAN and CARR), P., 1896, 48.

- Sturgeon, protamines from the sperm of (KOSSEL), A., i, 582.
- Sturine (KOSSEL), A., i, 582.
- Styrene (*cinnamene*), magnetic rotatory power, &c., of (PERKIN), T., 1143, 1149, 1224, 1246.
- nitrosite, ammonia derivative of (SOMMER), A., i, 295.
- nitrosite and its hydrochloride (SOMMER), A., i, 295.
- $\beta$ -Styrene nitrosite and its silver salt (SOMMER), A., i, 295.
- Styryl methyl ketone (*benzylideneacetone*), magnetic rotatory power, &c., of (PERKIN), T., 1145, 1229, 1247.
- reduction of (HARRIES and ESCHENBACH), A., i, 306.
- Suberic acid, azoimide of (CURTIUS and CLEMM), A., i, 464.
- hydrazide of (CURTIUS and CLEMM), A., i, 464.
- Sublimation in the cathode-light vacuum (KRAFFT and WEILANDT), A., ii, 635.
- velocity of iodine (ARCTOWSKI), A., ii, 636.
- of mercury haloid salts (ARCTOWSKI), A., ii, 635.
- Substance,  $C_4H_5N_3O_3$ , from hydroxylamine and glyoxal (MIOLATI), A., i, 276.
- $C_4H_5N_2SBr_2$ , from the action of bromine on allylthiourea (DIXON), T., 19; P., 1895, 215.
- action of caustic alkali on (DIXON), T., 19.
- $C_4H_5N_2SI_2$ , from allylthiourea and iodine (DIXON), T., 25; P., 1895, 216.
- action of caustic potash on (DIXON), T., 26; P., 1895, 216.
- action of silver chloride on (DIXON), T., 25.
- $C_4H_5N_2SCHI$ , from  $C_4H_5N_2SI_2$  and silver chloride (DIXON), T., 25.
- $C_6H_6O_3$ , from action of oxalic acid on levulose (DÜLL), A., i, 121.
- $C_6H_5N_3O_3$ , from acetoneoxime and hydroxylamine hydrochloride (JOVITSCHITSCH), A., i, 79.
- $C_6H_5N_3O_3$ , from sulphuric acid and 4 : 5-oximidomethylisoxazolone (JOVITSCHITSCH), A., i, 81.
- $C_7H_5N_2$ , from formaldehyde and excess of phenylhydrazine (WALKER), T., 1282.
- action of sodium ethoxide and sodium on (WALKER), T., 1283.
- action of excess of formaldehyde on (WALKER), T., 1284.
- Substance,  $C_7H_{12}N_2O$ , from the hydrobromide of ethylic hexahydroanthranilate amide (EINHORN and BULL), A., i, 472.
- $C_8H_{10}O_9$ , from dihydroxymaleic acid and hydrogen bromide in presence of acetic acid (FENTON), T., 559.
- $C_8H_{14}N_2O_2$ , from the action of heat on hydrazidodisobutyric acid (THIELE and HEUSER), A., i, 341.
- $C_8H_{16}O$ , derived from isobutaldehyde (FRANKL), A., i, 404.
- $C_8H_{16}O_4$ , from the action of alcohol and zinc dust on dibromodipropylisopropyl alcohol (OBERREIT), A., i, 666.
- $C_6H_{12}O_6, C_2H_2O_3 + H_2O$ , from glyoxylic acid and glucose (BOETTINGER), A., i, 6.
- $C_8H_{16}N_6O_4$ , from the action of hydrazine hydrate on ethylic succinamidooacetate (RADENHAUSEN), A., i, 138.
- $C_9H_6N_2O$ , from hippurylazoimide (CURTIUS), A., i, 38.
- $C_{10}H_{10}O_2$  or  $C_{10}H_{12}O_2$ , from oil of aniseed (BOUCHARDAT and TARDY), A., i, 380.
- $C_{10}H_{13}NO_6$ , from *trans*- $\pi$ -camphanic acid (KIPPING), T., 961.
- $C_{10}H_{14}O_4$ , from the action of sulphuric acid on ethylic  $\alpha$ -acetyl- $\alpha$ -isobutylsuccinate (AUWERS and SCHIFFER), A., i, 645.
- $C_{10}H_{16}O_3Br_2$ , from oxymenthyllic acid and bromine (BECKMANN and MEHRLÄNDER), A., i, 312.
- $C_{10}H_{17}Br_3O$ , from *l*-menthone and bromine (BECKMANN and MEHRLÄNDER), A., i, 312.
- $C_{10}H_{18}O_2$ , derived indirectly from isobutaldehyde (KOHN), A., i, 10.
- $C_6H_{12}O_6, 2C_2H_3O_2$ , from levulose and glyoxylic acid (BOETTINGER), A., i, 6.
- $C_{10}H_{20}O_2$ , from the ethereal oil of *Piper Lowong* (PEINEMANN), A., i, 495.
- $C_{10}H_{20}O_2$ , from the action of potash on isovaleraldehyde (KOHN), A., i, 461.
- $C_{13}H_{16}O_4Cu$ , obtained from the  $\alpha$ -copper derivative of ethylic hydroxymethylenephénylacetae (WISLICENUS), A., i, 554.
- $C_{14}H_{16}O_4$ , from diacetylacetone, oxime, conversion of, into dihydroxyacetyl dimethylnaphthalene, and behaviour of, towards ammonia (COLLIE and WILSMORE), T., 300; P., 1896, 47.

- Substance,  $C_{14}H_{16}N_4$ , from methenehydrazone and ethylic acetate (WALKER), T., 1286, 1287.
- $C_{14}H_{10}BrN_2O_5$ , from the oxidation product of camphoric acid, and its calcium salt (BALBIANO), A., i, 493.
- $C_{15}H_{10}O_4$ , from the root of *Rumex nepalensis* (HESSE), A., i, 315.
- $C_{15}H_{16}N_4$ , preparation of two isomeric forms of, from formaldehyde and phenylhydrazine (WALKER), T., 1280, 1281.
- $C_{15}H_{16}N_4$ , from phenylhydrazine and methylene dimethylic ether (GOLD-SCHMIDT), A., i, 543.
- $C_{16}H_{12}O_4$ , from the root of *Rumex nepalensis* (HESSE), A., i, 315.
- $C_{16}H_{18}N_4$ , from ethyl-*o*-phenylenediamine, and its hydrochloride and carbonate (KEHRMANN and HERTZ), A., i, 509.
- $C_{16}H_{18}N_4O$ , from phenylhydrazine and methylene dimethylic ether, and its hydrochloride (GOLD-SCHMIDT), A., i, 543.
- $C_{16}H_{18}N_4O$ , from  $C_7H_8N_2$  and formaldehyde (WALKER), T., 1284.
- $C_{16}H_{26}N_2O_4$ , from ethylic acetoacetate and piperazine (ROSDALSKY), A., i, 257.
- $C_{16}H_{32}O_2$ , derived from isobutaldehyde (FRANKE), A., i, 404.
- $C_{17}H_{20}N_8$ , from the action of diazobenzene chloride on hexamethylene-tetramine (DUDEN and SCHARFF), A., i, 123.
- $C_{18}H_{12}O_3$ , from  $\alpha$ -hydrindone and bromine (REVIS and KIPPING), P., 1895, 214.
- $C_{18}H_{13}BrO_2$ , from monobromohydrindone (REVIS and KIPPING), P., 1895, 214.
- $C_{18}H_{16}O_4$ , from the root of *Rumex nepalensis* (HESSE), A., i, 315.
- $C_{18}H_{17}N_2Br_2IO_2$ , from the action of alkalis on 4:1-bromhydroxyquinoline methiodide (CLAUS and MOHL), A., i, 697.
- $C_{18}H_{19}NO_4$ , formed by the oxidation of bebirine (SCHOLTZ), A., i, 710.
- $C_{18}H_{30}O$ , from *Convolvulus orizabens* (KROMER), A., i, 385.
- $C_{19}H_{12}N_2O_3$ , from *o*-chlorobenzene-azosalicylic acid (HEWITT and STEVENSON), T., 1261; P., 1896, 149.
- $C_{19}H_{16}O_4$ , from benzoyldiacetyl methane and benzoic chloride (CLAISEN and FALK), A., i, 560.
- $C_{20}H_{18}N_2S_2O_4$ , obtained by the action of ethylenic bromide on diphenylsulphone-*m*-phenylenediamine (HINSBERG and STRUPLER), A., i, 48.
- Substance,  $C_{20}H_{20}N_2O_3$ , from the condensation of ethylic pyruvate with aniline (SIMON), A., i, 86.
- $C_{20}H_{30}O_2$ , from  $\alpha\pi$ -dibromocamphor (REVIS and KIPPING), P., 1896, 77.
- $C_{21}H_{16}O_4N_4$ , from *o*-nitrobenzaldehyde and *o*-aminobenzylamine (BUSCH), A., i, 503.
- $C_{22}H_{24}N_2O_3$ , from ethylic pyruvate and *p*-toluidine (SIMON), A., i, 86.
- $C_{23}H_{24}N_4O$ , from acetophenonehydrazone and formaldehyde (WALKER), T., 1286.
- $C_{23}H_{26}N_2O_3$ , from the condensation of aniline with isoamylic pyruvate (SIMON), A., i, 86.
- $C_{24}H_{15}N_3O_5 + \frac{1}{2}H_2O$ , from cyanobenzylamine and nitrous acid (HERFELDT), A., i, 393.
- $C_{21}H_{19}N_5$ , from *p*-phenylenediamine and aposafranin (FISCHER and HERPP), A., i, 324.
- $C_{24}H_{20}N_2O$ , from bisnitrosodimethylnaphthalene (CANNIZZARO and ANDREOCCHI), A., i, 489.
- $C_{24}H_{20}N_2O_3$ , from the condensation of allylic pyruvate with aniline (SIMON), A., i, 86.
- $C_{25}H_{17}N_3O_2$ , from *o*-chlorobenzeneazosalicylic acid (HEWITT and STEVENSON), T., 1260; P., 1896, 149.
- $C_{25}H_{22}N_2O_3$ , from the condensation of aniline with benzylic pyruvate (SIMON), A., i, 86.
- $C_{25}H_{30}N_2O_3$ , from the condensation of *p*-toluidine with isoamylic pyruvate (SIMON), A., i, 86.
- $C_{26}H_{16}O_2$ , from tetraphenylenepinacol on oxidation (KLINGER and LONNES), A., i, 691.
- $C_{26}H_{18}O$ , from benzylic acid (KLINGER and LONNES), A., i, 375.
- $C_{26}H_{18}O_2$ , from the oxidation of the hydrocarbon  $C_{26}H_{18}$  (KLINGER and LONNES), A., i, 691.
- $C_{26}H_{18}O_7$ , from the reduction of euxanthone (MANN and TOLLENS), A., i, 449.
- $C_{27}H_{21}N_4$ , from benzylidenhydrazone and formaldehyde (WALKER), T., 1285.
- $C_{28}H_{21}N_3O_3$ , from tetraphenyldihydropyridazine (SMITH and RANSON), A., i, 322.
- $C_{28}H_{22}O_2$ , from substance  $C_{28}H_{22}O_2$  on reduction (JAPP and LANDER), T., 744.

- Substance,  $C_{23}H_{22}O$ , from anhydrazonatedibenzil on reduction (JAPP and LANDER), T., 745.
- $C_{18}H_{22}O_2$ , from the reduction of ethylic anhydrodibenzilacetoacetate (JAPP and LANDER), T., 744.
- $C_{24}H_{29}N_3O_2$ , from tetraphenyldihydropyridazine (SMITH and RANSOM), A., i, 322.
- $C_{30}H_{22}N_4Cl_2$ , from *o*-aminodiphenylamine and benzoic acid (KHEIMANN and BURGIN), A., i, 631.
- $C_{31}H_{24}O$ , from the reduction of ethylic anhydrodibenzilacetoacetate (JAPP and LANDER), T., 744; P., 1895, 146.
- $C_{38}H_{26}O_2$ , from the oxidation of bidiphenylethylene (GRAEBE and VON MANTZ), A., i, 442.
- Substituents in the ortho-position, "protecting influence" of (MELDOLA and STREATFIELD), P., 1896, 51.
- Succinamic acid, bromo-, action of alcoholic ammonia on (PIUTTI), A., i, 668.
- l-bromo- (WALDEN), A., i, 139.
- Succinamide, action of potash and bromine on (WEIDEL and ROITHNER), A., i, 470.
- action of sodium hypochlorite on (DE CONINCK), A., i, 282.
- Succinil (DUNLAP), A., i, 471.
- dbromo- (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.
- Succinilic acid, dbromo-, and the action of heat on (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.
- Succinethylnide, velocity of decomposition of, by hydrochloric acid (MIOLATI), A., ii, 242.
- Succinic acid from camphene (MARSH and GARDNER), T., 84; P., 1895, 206.
- free, non-occurrence of, in gedanite (HELM), A., i, 57.
- heat of electrolytic dissociation of (KORTRIGHT), A., ii, 463.
- sublimation temperature of, under small pressure (KRAFFT and DYES), A., ii, 89.
- action of uranium nitrate on (FAY), A., i, 465.
- absorption by silk of dilute (WALKER and APPELYARD), T., 1346; P., 1896, 147.
- Succinic acid, methylamides of, action of nitric acid on (FRANCHIMONT), A., i, 602.
- ethylic salt, molecular volume of, in organic solvents (NICOL), T., 143; P., 1895, 237.
- action of hydroxylamine on (ERRERA), A., i, 286.
- Succinic acid, ethylic salt, peroxydioxime (JOVITSCHITSCH), A., i, 82.
- Succinic acid, halogen substitution products of, conversion of, into the corresponding malic acids (WALDEN), A., i, 205.
- bromo-, rotatory power of the methylic, ethylic, propylic, and isobutylic salts of (WALDEN), A., ii, 137.
- l-bromo- and d-bromo-, preparation of, from asparagine and aspartic acid (WALDEN), A., i, 205.
- methylic salt (WALDEN), A., i, 139.
- dbromo-, ethylic salt, action of sodium ethoxide on (MICHAEL and BUCHER), A., i, 85.
- conversion of, into ethylic ethoxyfumarate (MICHAEL and BUCHER), A., i, 599.
- iso-dbromo-, conversion of, into dibromo- (MICHAEL), A., i, 132.
- chloro-, rotatory power of the methylic, ethylic, propylic, isobutylic, and amylic salts of (WALDEN), A., ii, 137.
- l-chloro-, from asparagine (WALDEN), A., i, 139.
- dextro- and inactive chloro-, rotatory power of the laevo- and inactive amylic salts of (WALDEN), A., ii, 139.
- dichloro- (MICHAEL and TISSOT), A., i, 132.
- hydrothio- (ANDREASCH), A., i, 90.
- Succinic acids, substituted, relative volatility of (AUWERS and SCHLOSSER), A., i, 639.
- iso-Succinic acid. See Methylmalonic acid.
- Succinic anhydride, refraction equivalent of (ANDERLINI), A., ii, 229.
- action of anthranilic acid on (AUWERS and HARGER), A., i, 641.
- action of secondary bases on (AUWERS and HARGER), A., i, 640.
- action of carbamide and thiocarbamide on (DUNLAP), A., i, 471.
- action of hydroxylamine on (ERRERA), A., i, 209.
- reduction products of (FICHTER and HERBRAND), A., i, 463.
- Succinic chloride, chloro-, rotatory power of (WALDEN), A., ii, 137.
- Succinic peroxide, and the action of phenylhydrazine on (VANINO and THIELE), A., i, 597.
- Succinimide (DUNLAP), A., i, 471.
- heat of solution of, in water and ethylic alcohol (SPEYERS), A., ii, 411.
- velocity of decomposition of, by hydrochloric acid (MIOLATI), A., ii, 242.

- Succinimide, action of sodium hypochlorite on (DE CONINCK), A., i, 282.  
 compound of, with potassium iodide and iodine (PIUTTI), A., i, 364.
- Succinimidoacetic acid, identity of, with succinylamidoacetic acid (RADENHAUSEN), A., i, 137.
- Succinite, difference between gedanite and (HELM), A., i, 57.
- Succino-*o*-carboxyanilic acid (AUWERS and HARGER), A., i, 641.
- Succino-*o*-carboxyphenylamide (AUWERS and HARGER), A., i, 641.
- Succinodiphenylaminic acid (AUWERS and HARGER), A., i, 641.
- Succinoethylanic acid (AUWERS and HARGER), A., i, 641.
- Succinoethylanilide (AUWERS and HARGER), A., i, 641.
- Succinomethylanic acid (AUWERS and HARGER), A., i, 641.
- Succinomethylanilide (AUWERS and HARGER), A., i, 641.
- Succino- $\alpha$ -naphthalide, diacetyl derivative of (BOETTINGER), A., i, 443.
- Succino- $\beta$ -naphthalide (GASSMANN), A., i, 487; (AUWERS and HARGER), A., i, 641.
- Succino- $\alpha$ -naphthil (BOETTINGER), A., i, 443.
- Succino- $\beta$ -naphthil (GASSMANN), A., i, 487; (AUWERS and HARGER), A., i, 641.
- Succino- $\beta$ -naphthilic acid (AUWERS and HARGER), A., i, 641.
- di*bromo- (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.
- Succino-*o*-nitranil (AUWERS and HARGER), A., i, 641.
- Succino-*p*-nitranil (AUWERS and HARGER), A., i, 641.
- Succino-*o*-nitranilic acid (AUWERS and HARGER), A., i, 641.
- Succino-*p*-nitranilic acid (AUWERS and HARGER), A., i, 641.
- Succinotetraphenyldiamide (AUWERS and HARGER), A., i, 641.
- Succino-*p*-tolil (AUWERS and HARGER), A., i, 640.
- Succino-*p*-tolilic acid (AUWERS and HARGER), A., i, 640.
- di*bromo- (AUWERS, SCHIFFER, and SINGHOF), A., i, 644.
- Succino-*p*-tolylamide (AUWERS and HARGER), A., i, 640.
- Succinuric acid (DUNLAP), A., i, 471.
- Succinylacetoxylamine (ERRERA), A., i, 209, 286.
- Succinylamidoacetic acid, ethylic salt (RADENHAUSEN), A., i, 137.
- Succinylazoimide (CURTIS), A., i, 35.
- Succinylhydroxamic acid (ERRERA), A., i, 209, 286.
- Succinylhydroxylamine, and the action of alcoholic ammonia on (ERRERA), A., i, 209.
- Succinyltropine (MERCK), A., i, 65.
- Suprarenal capsules, toxic substance in (GOURFEIN), A., ii, 49.
- Sugar as a source of muscular energy (SERGEN), A., ii, 487.  
 in the blood, influence of ligaturing the intestinal arteries on (TANGL and HARLEY), A., ii, 47.  
 formation of, in the liver (MOSSE), A., ii, 617.  
 causes of formation of, in liver after death (PAYY), A., ii, 665.  
 absence of, in normal urine (JOHNSON), A., ii, 199.  
 in hops (BEHRENS), A., ii, 207.  
 presence of, in *Pangium edule* (TREUB), A., ii, 327.  
 in fruit juices (KREMLA), A., ii, 62.  
 formed in the autodigestion of yeast (SALKOWSKI), A., ii, 202.  
 effect of, on germination of plants (PRIANISCHNIKOFF), A., ii, 380.  
 test for, in urine (JOHNSON), A., ii, 199.  
 estimation of, in blood (REID), A., ii, 678.
- Sugar, cane- (*sucrose*), action of lead acetate on the rotatory power of (SVOBODA), A., i, 406.  
 heat of solution of, in water (SPEYERS), A., ii, 411.  
 freezing points of aqueous solutions of (PONSOT), A., ii, 412.  
 freezing points of dilute solutions of (JONES), A., ii, 155; (WILDERMANN), A., ii, 351; (ABEGG), A., ii, 588.  
 density of very dilute solutions of (KOHLEAUSCH), A., ii, 90.  
 oxidation of (HICKS), A., i, 136, 137; (PHIPSON), A., i, 137; (SEARLE and TANKARD), A., i, 137.  
 action of glyoxylic acid on (BOETTINGER), A., i, 5.  
 action of oxalic acid on (KIERMAYER), A., i, 144.  
 fermentation of, with different yeasts (HIEPE), A., ii, 320.  
 hydrolysis of (O'SULLIVAN), A., i, 334.  
 hydrolysis of, under pressure by acids (ROTHMUND), A., ii, 594.  
 inversion of, by salts (LONG), A., ii, 414.  
 inversion of, by micro-organisms (FERMI and MONTESANO), A., ii, 493.



- Sugar, cane-, digestion of (BOURQUELOT and GLEY), A., ii, 315.  
 reducing power of, on ammoniacal silver nitrate (HENDERSON), T., 150; P., 1896, 9.
- Sugar, cane-, estimation of (O'SULLIVAN), A., i, 334.  
 estimation of, in malt (JALOWETZ), A., ii, 225.  
 estimation of, in syrups, &c. (PY), A., ii, 342.
- Beet sugar, estimation of pentoses and pentosans in (STIFT), A., ii, 79.
- Sugar, invert-, action of limewater on (WINTER), A., i, 11.  
 estimation of, influence of the two lead acetates on the (BORNTRÄGER), A., ii, 278.
- Sugar-bush (*Protea mellifera*), constituents of (HESSE), A., i, 495.
- Sugars, raw, estimation of crystallisable sugars in (STROHMER and STIFT), A., ii, 505.  
 and beet sugars, estimation of water in (GUNNING), A., ii, 453.
- Sugars, fermentation of, by Friedländer's pneumococcus (GRIMBERT), A., ii, 322.  
 action of alkalis on (DE BRUYN and VAN EKENSTEIN), A., i, 116.  
 transformation of, by lead hydroxide (DE BRUYN and VAN EKENSTEIN), A., i, 588.  
 behaviour of solutions of, with basic lead acetate (SVOBODA), A., i, 406.  
 ammoniacal derivatives of (DE BRUYN and VAN LEENT), A., i, 118, 119.  
 compounds of aminoguanidine with the (WOLFF), A., i, 78, 79.  
 compounds of, with mercaptans (LAWRENCE), A., i, 272.
- Sugars. See also:—  
 Adonitol.  
 Araban.  
 Arabinose.  
 Arabitol.  
 Cane-sugar (sucrose).  
 Dextrose.  
 Diglucose.  
 Dulcitol.  
*iso*-Dulcitol.  
 Fructose (levulose).  
 Galactan.  
 Galactose.  
 $\alpha$ -Galaheptose and  $\beta$ -galaheptose.  
 Galactose.  
 Glucoheptitol.  
 Glucose.  
 Glycerose.  
 Lactose.
- Sugars. See:—  
 Levulose.  
 Lyxose.  
 Maltose and *isomaltose*.  
 Mannan.  
 Mannitol.  
 Mannose and *d*-mannose.  
 Metamaltose.  
 Methyltetrose.  
 Raffinose.  
 Rhamnose and *isorhamnose*.  
 Sorbitol.  
 Volemitol.  
 Xylose.
- Sulla. See Agricultural chemistry (Appendix).
- 3-Sulphamidobenzamide, 5-bromo- (BOETTINGER), A., i, 438.
- 3-Sulphamidobenzoic acid, 5-bromo-, sodium salt of (BOETTINGER), A., i, 438.
- p*-Sulphamidobenzoic acid (REMSEN and MUCKENFUSS), A., i, 481.
- iso-p*-Sulphamidobenzoic acid and its barium salt (REMSEN and MUCKENFUSS), A., i, 482.
- p*-Sulphaminebenzoic chloride, phosphochloro- (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 372.
- p*-Sulphanilic acid, absorption by silk of dilute (WALKER and APPELYARD), T., 1346; P., 1896, 147.  
 estimation of (BRENZINGER), A., ii, 396.  
 estimation of, in presence of *m*-sulphanilic acid (BRENZINGER), A., ii, 397.
- p*-Sulphanilidobenzoic acid and its salts (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 373.
- Sulphanisic acid, preparation of. (HOFMANN LECTURE), T., 697.
- Sulphates. See under Sulphur.
- Sulphides. See under Sulphur.
- Sulphites. See under Sulphur.
- Sulpho-derivatives, poisonous effect of, on algae and infusoria (BOKORNY), A., ii, 669.
- 3-Sulphobenzoic acid, 4-bromo-, dichloride of (BOETTINGER), A., i, 372.  
 ethylic hydrogen salt of (BOETTINGER), A., i, 372.
- 5-bromo- (BOETTINGER), A., i, 438.
- p*-Sulphobenzoic acid and its ammonium salt (REMSEN and MUCKENFUSS), A., i, 482.  
 acid ammonium salt of (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 372.
- Sulphocarbaniide, preparation of (HOFMANN LECTURE), T., 649, 652.

3-Sulphochlorobenzoic acid, 5-bromo- (BOETTINGER), A., i, 438.  
 3-Sulphochlorobenzoic chloride, 5-bromo- (BOETTINGER), A., i, 438.  
 Sulphohydrazimethylenecarboxylic acid, behaviour of potassium ethylic salt of, towards diazobenzene acetate and diazobenzene (VON PECHMANN), A., i, 678.  
 Sulphohydrazimethylenedisulphonic acid, potassium salts of (VON PECHMANN and MANCK), A., i, 15, 16.  
 Sulphonal as a cause of hæmatoporphyria (GARROD and HOPKINS), A., ii, 264.  
 Sulphonaphthalene-1 : 4'-dicarboxylic acid, barium salt (MORO), A., i, 568.  
 Sulphonaphthylphosphinic acid, from the sulphonic acid of  $\alpha$ -naphthyllic phosphate (REVERDIN and KAUFFMANN), A., i, 176.  
 $\alpha\beta$ -Diphonedipropionic acid (LOVÉN), A., i, 413.  
 $\beta$ -Sulphonedipropionic acid and its ethylic salt (LOVÉN), A., i, 412.  
 Sulphonefluorescein, action of bromine and of phosphorus pentachloride on (WHITE), A., i, 49.  
 Sulphones. See:—  
   Allyl- $\alpha$ -naphthylsulphone.  
   Benzenesulphoneasparagine.  
   Benzenesulphoneglycocine.  
    $\psi$ -Cumenesulphoneglycocine.  
   1 : 2-Dihydroxyphenyl-*p*-phenylsulphone.  
   1 : 4-Dihydroxyphenylsulphone.  
    $\beta$ -Dinaphthylpropylenedisulphone.  
   Diphenyldisulphonedimethyl-*p*-phenylenediamine.  
   2 : 5-Diphenyldisulphone-*p*-phenylenediamine.  
   Diphenylenedisulphone.  
   Diphenylene sulphide sulphone.  
   Diphenylsulphone-*o*-aminophenol.  
   Diphenylsulphonedithylethylene-diamine.  
   Diphenylsulphone-ethylenediamine.  
   Diphenylsulphone-ethylene-*o*-phenylenediamine.  
   Diphenylsulphonemethylene-*o*-phenylenediamine.  
   Diphenylsulphone-*o*-phenylene-diamine.  
   Diphenylsulphone-*m*-phenylene-diamine.  
   Diphenylsulphonetrimethylene-phenylenediamine.  
   Methanesulphonepropionic acid.  
   *p*-Methylsulphonefluorescein.  
    $\beta$ -Naphthylallylsulphone.  
    $\beta$ -Naphthylbromopropylsulphone.  
    $\beta$ -Naphthylhydroxypropylsulphone.

Sulphone. See:—  
 $\beta$ -Naphthyliodopropylsulphone.  
 $\beta$ -Naphthylphenylpropylenedisulphone.  
 Phenazyldiphenyldisulphone.  
 Phenazyphenylsulphone.  
 Phenyltolylsulphone.  
 Piperazine-1 : 4-diphenyldisulphone.  
 Sulphonefluorescein.  
 Tetraphenyldisulphone-*o*-phenylenediamine.  
*o*- and *p*-Toluenesulphoneglycocines.  
*p*-Tolylhydroxymethylsulphone.  
 1 : 2 : 3-Trihydroxyphenylsulphone.  
 Trimethylene- $\beta$ -dinaphthylsulphone.  
 $\beta$ -Trinaphthylallyltrisulphone.  
 1 : 3 : 4-Xylenesulphonealanine.  
 1 : 3 : 4-Xylenesulphoneglycocine.  
 $\alpha$ -Sulpho-*p*-toluic acid, ammonium hydrogen salt of, action of resorcinol on (JONES), A., i, 50.  
 Sulphur, origin of Sicilian deposits of (SJÖGREN), A., ii, 111.  
   native, from Michigan (SHERZER), A., ii, 182.  
   molecular weight of, in different solvents (ORNDORFF and TERRASSE), A., ii, 357.  
   spectrum of the flame of (BOHN), A., ii, 140.  
   a supposed decomposition of (GROSS), A., ii, 472.  
 Amidosulphonic acid, preparation of (DIVERS and HAGA), T., 1637; P., 1896, 180.  
   formation of, by reduction of nitrososulphates (DIVERS and HAGA), T., 1615; P., 1896, 179.  
   electrolytic conductivity of (SAKURAI), T., 1656; P., 1896, 181.  
   and its salts, effect of heat on (DIVERS and HAGA), T., 1650; P., 1896, 181.  
   action of, on plants and animals (LOEW), T., 1662; P., 1896, 182.  
 Sulphur chloride, action of potassium bromide and iodide and ethylic iodide on (SNAPE), A., ii, 641.  
 Hydrogen sulphide, action of carbonyl chloride on (BESSON), A., ii, 359.  
   action of sulphuric chloride on (BESSON), A., ii, 417.  
 Sulphides, detection of, in presence of polysulphides, sulphites, sulphates, and thiosulphates (BLOXAM), A., ii, 72.  
   mineral, microchemical reactions of (LEMBERG), A., ii, 430.

## Sulphur:—

- Sulphides, inorganic, estimation of sulphur in (JANNASCH and LEHNERT), A., ii, 542; (JANNASCH and HEIDENREICH), A., ii, 671.  
 estimation of, in cyanide working solutions (BETTEL), A., ii, 277.
- Polysulphides, action of, on nitro-genous organic compounds (ALF-SCHLAGER), A., ii, 574.  
 detection of, in presence of sulphides, sulphates, thiosulphates, and sulphites (BLOXAM), A., ii, 72.
- Imidosulphonic acid, salts of (DIVERS and HAGA), T., 1620; P., 1896, 179.
- Sulphur nitride, preparation and properties of (SCHENCK), A., i, 427.  
 acids containing nitrogen and (WAGNER), A., ii, 599.
- Nitrosodisulphonic (*oxysulphazotic*) acid (HANTZSCH and SEMPLE), A., ii, 95; (SABATIER), A., ii, 599, 641.
- Dinitrosulphonic (*nitroxysulphurous*) acid (HANTZSCH), A., ii, 96.
- Nitrososulphuric acid, reduction by sodium of the salts of (DIVERS and HAGA), T., 1610; P., 1896, 179.
- Sulphurous anhydride (*sulphur dioxide*), oxidation of, in presence of water (DIXON), T., 779.  
 influence of, in coal-gas flames on quantitative estimations (MULLER), A., ii, 333.  
 estimation of, in carbolic powders (DE KONINGH), A., ii, 275.  
 estimation of, in products of combustion of coal-gas (DENNSTEDT and AHRENS), A., ii, 217.
- Sulphites, detection of, in presence of carbonates and sulphates (GIACOMELLI), A., ii, 124.  
 detection of, in presence of sulphides, polysulphides, thiosulphates, and sulphates (BLOXAM), A., ii, 72.  
 detection of, in presence of sulphates and thiosulphates (SMITH), A., ii, 71.
- Thionyl bromide (BESSON), A., ii, 358.  
 chlorobromide (BESSON), A., ii, 358.
- Sulphuric acid, electrocapillary phenomena between mercury and dilute (GOUY), A., ii, 143.  
 density of very dilute solutions of (KOHLEAUSCH), A., ii, 90.  
 heat of combination of, with water in the liquid and solid states (PICKERING), A., ii, 148.

## Sulphur:—

- Sulphuric acid, breaks in the heat of solution curve of (PICKERING), A., ii, 155.  
 freezing points of aqueous solutions of (PONSOT), A., ii, 412.  
 freezing points of dilute solutions of (WILDERMANN), A., ii, 351.  
 absorption of moisture by (HALE), P., 1896, 34.  
 absorption by silk of dilute (WALKER and APPELEYARD), T., 1346; P., 1896, 147.  
 action of copper on (BASKERVILLE), A., ii, 474.  
 acceleration of the action of hydriodic acid on hydrogen peroxide by (HARCOURT and ESSON), A., ii, 238.  
 use of, in nitration (HOFMANN LECTURE), T., 695.  
 methylamides of, action of nitric acid on (FRANCHIMONT), A., i, 602.  
 estimation of, photometrically (HINDS), A., ii, 574.  
 estimation of, by means of potassium permanganate (MORSE and CHAMBERS), A., ii, 388.  
 estimation of arsenic in (HATTENSAUR), A., ii, 390.  
 estimation of, in products of combustion of coal-gas (DENNSTEDT and AHRENS), A., ii, 217.  
 estimation of, in hydrofluoric acid (STAHL), A., ii, 621.  
 estimation of, in leather (BALLAND and MALJEAN), A., ii, 499.  
 fuming, estimation of sulphuric anhydride in (DOBRINER and SCHRANZ), A., ii, 672.
- Sulphuric anhydride, estimation of, in fuming sulphuric acid (DOBRINER and SCHRANZ), A., ii, 672.
- Sulphuric chloride, action of some hydrides on (BESSON), A., ii, 417.
- Sulphates, conversion of, into chlorides (JANNASCH), A., ii, 574.  
 precipitation of, by barium chloride (LUNGE), A., ii, 672.  
 detection of, in presence of carbonates and sulphites (GIACOMELLI), A., ii, 124.  
 detection of, in presence of sulphides, sulphites, polysulphides, and thiosulphates (BLOXAM), A., ii, 72.  
 detection of, in presence of sulphites and thiosulphates (SMITH), A., ii, 71.

## Sulphur:—

- Persulphuric acid, formation of, by electrolysis of sulphuric acid (ELBS and SCHÖNHERR), A., ii, 519.
- apparatus for showing the formation of (ELBS), A., ii, 519.
- estimation of, with ferrous sulphate (BERTHELOT), A., ii, 70.
- Thiosulphates, detection of, in presence of sulphides, polysulphides, sulphates, and sulphites (BLOXAM), A., ii, 72.
- detection of, in presence of sulphates and sulphites (SMITH), A., ii, 71.
- standardisation of, by iodic acid (RIEGLER), A., ii, 573.
- Polythionic acids, molecular volume, electrical conductivity, viscosity, molecular refraction, and electromotive force with different electrodes of the salts of (HERTLEIN), A., ii, 353.
- Sulphur, estimation of, in non-volatile substances (MABERY), A., ii, 387.
- estimation of, in inorganic sulphides (JANNASCH and LEHNERT), A., ii, 542; (JANNASCH and HEIDENREICH), A., ii, 671.
- estimation of, in coal and gas (MABERY), A., ii, 387.
- estimation of, in refined copper (HEATH), A., ii, 497.
- estimation of, in copper ores and pyrites (KELLER and MAAS), A., ii, 498.
- estimation of, in iron, apparatus for (READ), A., ii, 274.
- estimation of, in cast-iron or steel (BOUCHER), A., ii, 671.
- estimation of, in white cast-iron (PHILLIPS), A., ii, 498.
- estimation of, in pig-iron (AUCHY), A., ii, 543.
- estimation of, in pyrites (ASBÓTH), A., ii, 71; (LUNGE), A., ii, 498; (GLADDING), A., ii, 622.
- estimation of, in zinc (FUNK), A., ii, 274.
- estimation of, in organic compounds (MABERY and BYERLEY), A., i, 329; (ASBÓTH), A., ii, 448.
- estimation of, in oil of mustard (FOERSTER), A., ii, 452.
- Sumach, myricetin, the colouring matter of (PERKIN and ALLEN), T., 1299; P., 1896, 157.
- Sunflower, edestin in (OSBORNE and CAMPBELL), A., i, 716.
- Superphosphates. See Phosphorus and Agricultural chemistry (Appendix).

- Surface tension, effects on broken crystals of their (LEHMANN), A., ii, 160.
- Syenite from Montana (WEED and PISSON), A., ii, 192.
- mica-, from Saxony (HENDERSON), A., ii, 533.
- Sylvanite from Cripple Creek, Colorado (PEARCE), A., ii, 612, 613.
- Symbiosis and assimilation of nitrogen, relation of (STOKLASA), A., ii, 201.
- Symmetry and asymmetry, molecular (GROTH), A., ii, 159; (LADENBURG), A., ii, 244.
- Symphoricarpos racemosus*, detection of proteosomes in (LOEW), A., ii, 58.
- "Syntagmatite" (ADAMS and HARRINGTON), A., ii, 374.
- Syrups, estimation of levulose in (WILEY), A., ii, 342.
- estimation of sucrose, glucose, and gelose in (PY), A., ii, 342.
- Systematic chemistry, L. Meyer's papers on (BEDSON), T., 1421; P., 1896, 119.

## T.

- Talc from New Mexico (PACKARD), A., ii, 530.
- from Ontario (HOFFMANN), A., ii, 258.
- Tallow, estimation of the acetyl numbers of (SPAETH), A., ii, 454.
- Tannage chrome, analysis of used liquors from (HEAL and PROCTOR), A., ii, 393.
- Tannic acid, optical activity and constitutional formula of (SCHIFF), A., i, 370.
- Tannin in bark of *Myrica nagi* (PERKIN and HUMMEL), T., 1294; P., 1896, 145.
- non-formation of, in fungi (NAUMANN), A., ii, 538.
- use of, in dyeing (HOFMANN LECTURE), T., 608.
- estimation of, by copper (RUOSS), A., ii, 501.
- estimation of, in wine (MANCEAU), A., ii, 282.
- Tanning matter, estimation of (PROCTER), A., ii, 403.
- Tantalite from Finland (CHRUST-SCHOFF), A., ii, 567.
- Tantalum fluoride (PICCINI), A., ii, 178.
- separation of niobium from (PENNINGTON), A., ii, 305.
- Taraxacum officinalis*, optimum temperature for the respiration of (ZIEGENBEIN), A., ii, 265.

- Tariric acid, action of phosphorus and hydriodic acid on (ARNAUD), A., i, 522.
- Tarnowitzite from Silesia (TRAUBE), A., ii, 255.
- Tartar, estimation of, in wine (HAAS), A., ii, 583.
- Tartar, cream of, analysis and composition of (ALLEN), A., ii, 584.
- Tartaric acid, formation of, by oxidation of cane sugar (PHIPSON), A., i, 137.
- freezing points of dilute solutions of (ABEGG), A., ii, 588.
- absorption by silk of dilute (WALKER and APPEYARD), T., 1346; P., 1896, 147.
- and alkali tartrates, action of, on various salts (DE LA SOURCE), A., i, 206, 207.
- action of formaldehyde and hydrochloric acid on (HENNEBERG and TOLLENS), A., i, 645.
- oxidation of, in presence of ferrous iron (FENTON), T., 546; P., 1896, 67.
- Tartaric acid, caesium and rubidium salts, rotatory power of, in the crystalline and solid states (TRAUBE), A., ii, 509.
- lead potassium salt, constitution of (KAHLENBERG), A., ii, 6.
- ferrous salt, behaviour of, in air (FENTON), T., 547.
- ethylic salt, behaviour of, towards phenylic isocyanate (HALLER), A., i, 33.
- disodium compound, action of ethylic chloride on (MULDER), A., i, 281.
- Tartaric acid, detection of, by resorcinol (DENIGÈS), A., ii, 80.
- detection of, in presence of nitrates, nitrites, and chlorates (DENIGÈS), A., ii, 332.
- estimation of, in wine (HAAS), A., ii, 583.
- d*-Tartaric acid, configuration of (FISCHER), A., i, 525.
- levo- and inactive amylic salts, rotatory power of the (WALDEN), A., ii, 139.
- l*-Tartaric acid, preparation of, by means of the cinchonine salt (MARCKWALD), A., i, 207.
- meso*-Tartaric acid, rotatory power of the amylic salt of (WALDEN), A., ii, 633.
- Tartaric acid : Racemic acid, amylic salt, rotatory power of (WALDEN), A., ii, 633.
- levo-amylic salt, rotatory power of the (WALDEN), A., ii, 139.
- Tartaryl- $\alpha$ -naphthalide, tetracetyl derivative of (BOETTINGER), A., i, 443.
- Tartaryl- $\beta$ -naphthalide, acetyl and diacetyl derivatives of (GASSMANN), A., i, 487.
- Tartrazin, behaviour of, towards diazo-compounds (GNEHM and BENDA), A., i, 678.
- Tartrouamide and the biuret reaction (SCHIFF), A., i, 632.
- Tartronylurea. See Dialuric acid.
- Tartryltartaric acid, decomposition products of (MULDER), A., i, 281.
- Tartryltropeine (MERCK), A., i, 65.
- Taurocholic acid, crystalline, preparation of, from ox-bile (RICHTER), A., i, 111.
- Tautomerism (MARCKWALD), A., i, 29; (VON PECHMANN), A., i, 31.
- Tea extract, isolation of adenine, theobromine, and a new base from (KRÜGER), A., i, 450.
- estimation of caffeine in (PETIT and TERRAT), A., ii, 629.
- Teeth, composition of the enamel of (TOMES), A., ii, 315.
- Tellurium, atomic weight of (STAUDENMAIER), A., ii, 97.
- atomic weight of Japanese (CHIKASHIGÉ), T., 881; P., 1896, 151.
- position of, in the periodic system (RETGERS), A., ii, 520.
- Telluric acid, preparation of (STAUDENMAIER), A., ii, 96.
- Tellurium minerals from Cripple Creek, Colorado (PEARCE), A., ii, 612, 613; (KNIGHT), A., ii, 613.
- Tellurium, separation of, from copper residues (WHITEHEAD), A., ii, 164.
- Temperature. See Heat.
- Tennantite from Salzburg (SCHWAGER and GÜMBEL), A., ii, 431.
- Tenorite after cuprite from Russia (JEREMÉEFF), A., ii, 566.
- Tension of saturated vapour. See Heat, vapour pressure.
- Tephrite, nepheline-leucite-, from Bohemia (HIBSCH), A., ii, 117.
- Terbia, a probable new element in (DE BOISBAUDRAN), A., ii, 249.
- Terebic acid, refraction equivalent of (ANDERLINI), A., ii, 229.
- from  $\alpha$ -pinonic acid (VON BAERER), A., i, 308.
- from the oxidation of sobreritritol (GINZBERG), A., i, 446.
- from terpenylic acid (MAHLA and TIEMANN), A., i, 385.
- Terephthalic acid from the oxidation of camphene (MARSH and GARDNER), T., 84; P., 1895, 206.

- Terephthalic acid, ethylic salt, magnetic rotatory power, &c., of (PERKIN), T, 1132, 1178, 1238.  
*tetrabromo-* (RUFF), A., i, 618.  
*tetrachloro-* (RUFF), A., i, 618.  
*tetradio-* (RUFF), A., i, 618.  
Terephthalylazoimic acid, ethylic salt (CURTIUS and DAVIDIS), A., i, 681.  
Terephthalylazoimide (CURTIUS and DAVIDIS), A., i, 681.  
Terephthalylhydrazide, hydrochloride, formylidene, isopropylidene, and benzylidene derivatives of (CURTIUS and DAVIDIS), A., i, 681.  
Terephthalylhydrazineacetacetic acid, ethylic salt (CURTIUS and DAVIDIS), A., i, 681.  
Terephthalylhydrazinic acid, ethylic salt, hydrochloride, sodium and benzylidene derivatives of (CURTIUS and DAVIDIS), A., i, 681.  
Terpene,  $C_{10}H_{16}$ , from Charas (WOOD, SPIVEY, and EASTERFIELD), T., 541; P., 1896, 76.  
Terpene hydrate from limonene hydrochloride (KREMERS), A., i, 177.  
 $\Delta^{1-8}$ -Terpene, 1-bromo- (VON BAEYER and BLAU), A., i, 53.  
nitrosobromide (VON BAEYER and BLAU), A., i, 53.  
compounds from (VON BAEYER and BLAU), A., i, 53.  
Terpenes from oil of lignaloes (BARBIER and BOUVEAULT), A., i, 55.  
behaviour of, towards trichloroacetic acid (REYCHLER), A., i, 308.  
 $\Delta^{4-8}$ -Terpenol acetate, nitrosobromide (VON BAEYER and BLAU), A., i, 53.  
compounds from (VON BAEYER and BLAU), A., i, 53.  
nitrosochloride, compound from (VON BAEYER and BLAU), A., i, 54.  
Terpenone,  $C_{10}H_{16}O$ , from bisnitroso-tetrahydrocarvone, and its semicarbazon (VON BAEYER), A., i, 248.  
Terpenylic acid (FITTIG and WOLFF), A., i, 135.  
from oxidation of sobreritritol (GIVBERG), A., i, 446.  
from pinoylformic acid (VON BAEYER), A., i, 621.  
oxidation and constitution of (MAHLA and TIEMANN), A., i, 385.  
Terpin hydrate from carvone (REYCHLER), A., i, 308.  
Terpineol, conversion of, into dipentene, and terpinolene (WALLACH), A., i, 572.  
nitrosochloride, behaviour of, towards halogen hydrides (VON BAEYER), A., i, 246.  
Terpineol nitrosochloride, conversion of, into hydroxydihydrocarvoxime (WALLACH), A., i, 571.  
Terpinolene, from terpineol (WALLACH), A., i, 572.  
Tetrabenzoylfisetin (PERKIN and GUNNELL), T., 1305; P., 1896, 158.  
Tetrabenzoylluteolin (PERKIN), T., 210; P., 1896, 37.  
*exo*-Tetracetodiamido-*p*-xylene (LUSTIG), A., i, 164.  
Tetracetylaconine, preparation and hydrolysis of (DUNSTAN and CARR), P., 1895, 178.  
Tetracetylhydromoluleolin (PERKIN), T., 210; P., 1896, 37.  
Tetracetylthane ? from sodioacetylacetone (ZANETTI), A., i, 249.  
Tetracetylfisetin (PERKIN and GUNNELL), T., 1305; P., 1896, 158.  
Tetracetyl- $\beta$ -galactochloral (HANRIOT), A., i, 519.  
Tetracetyluteolin (PERKIN), T., 210; P., 1896, 37.  
Tetracetylthammonic nitrile, and the action of silver oxide on it (FISCHER), A., i, 525, 526.  
Tetracetylsuccinylhydroxamic acid (ERRERA), A., i, 286.  
Tetracetyl tartaryl- $\alpha$ -naphthalde (BOETTINGER), A., i, 443.  
Tetracetylxylose (BADER), A., i, 336.  
Tetradecylacetylene. See Hexadecylmenes.  
Tetragophosphite from Sweden (IGELSTROM), A., ii, 308.  
Tetrahedrite from New South Wales (LIVERSIDGE), A., ii, 657.  
argentiferous, from Broken Hill, N.S.W. (SMITH), A., ii, 30.  
Tetrahydroacetophenone. See *cyclo*-Hexenyl methyl ketone.  
Tetrahydro-1 : 3 : 5-carvacrol. See 1-Methyl-3-isopropylcyclohexen-5-ol.  
Tetrahydrocarveol, active, from phellandrene nitrite (WALLACH and HERBIG), A., i, 101.  
Tetrahydrocarvone derivatives from phellandrene (WALLACH and HERBIG), A., i, 101.  
Tetrahydrocarvonebisnitrosylic acid, from bisnitrosotetrahydrocarvone (VON BAEYER), A., i, 248.  
bromo- (VON BAEYER), A., i, 246.  
Tetrahydrocarvylamine, active, from phellandrene nitrite: its hydrochloride, carbamide, phenylcarbamide, and acetyl derivative (WALLACH and HERBIG), A., i, 101.  
Tetrahydrocinchonidine nitrosnitrite and other salts (KONEK VON NORWALL), A., i, 395.

- Tetrahydro-*m*-cresol. See 1-Methyl-*cyclohexenol*-5.
- Tetrahydrocumatic acid. See 4-*iso*-Propyl*cyclohexenecarboxylic* acid.
- Tetrahydro- $\psi$ -cumenecarboxylic acid. See Campholenic acid.
- Tetrahydrocymene. See 1 : 4-Methyl-propyl*cyclohexene*.
- Tetrahydro-1 : 3-dimethylphenethyl-4-acid. See Campholenic acid.
- Tetrahydronaphthalene-1 : 4'-dicarboxylic acid, barium, and calcium salts (MORO), A., i, 568.
- ar*-Tetrahydro- $\alpha$ -naphthylamine, magnetic rotatory power, &c., of (PERKIN), T., 1104, 1106, 1213, 1245.
- ac*-Tetrahydro- $\beta$ -naphthylamine, magnetic rotatory power, &c., of (PERKIN), T., 1104, 1106, 1213, 1245.
- 1- $\beta$ -Tetrahydronaphthyl-3-cyanotrimethylpiperidone (BENEDICENTI), A., i, 488.
- Tetrahydro- $\beta$ -naphthylloxamic acid (BENEDICENTI), A., i, 488.
- Tetrahydro- $\alpha$ -naphthylpiperidine and its hydrochloride, mercuriochloride, and ferrocyanide, &c. (ABEL), A., i, 254.
- Tetrahydro- $\beta$ -naphthylpiperidine and its hydrochloride, platinochloride, aurochloride, and picrate (ROTH), A., i, 497.
- Tetrahydrophthalic acids. See *cyclo*-Hexenedicarboxylic acids.
- Tetrahydroquinacridine (NIEMEN-TOWSKI), A., i, 261.
- Tetrahydroquinidine nitrosonitrite (KONEK VON NORWALL), A., i, 395.
- Tetrahydroquinine and its acetyl derivative (LIPPMANN and FLEISSNER), A., i, 63.
- nitrosonitrite (KONEK VON NORWALL), A., i, 395.
- Tetrahydroquinoline, magnetic rotatory power, &c., of (PERKIN), T., 1117, 1214, 1245.
- Tetrahydrotoluene. See Methyl*cyclohexene*.
- Tetrahydroxydecoic acid (KROMER), A., i, 386.
- 2 : 4 : 2' : 4'-Tetrahydroxydiphenylacetic acid (HEWITT and POPE), T., 1268, 1269 ; P., 1896, 151.
- lactone of, and its triacetyl derivative (HEWITT and POPE), T., 1267, 1269 ; P., 1896, 151.
- Tetrahydro-1 : 3 : 5-xylenol. See 3 : 5-Dimethyl*cyclohexenol*.
- Tetrahydro-*p*-xylic acid [3 : 4]. See 3 : 4-Dimethyl*cyclohexenecarboxylic* acid.
- Tetrallylammonium hydroxide (ORLOFF), A., i, 634.
- aluminium alum, action of heat on (ORLOFF), A., i, 634.
- chronium alum (ORLOFF), A., i, 631.
- 5 : 5 : 5 : 5-Tetramethoxy-4 : 4 : 4 : 4-tetramethyltetraphenylethylene (GATTERMANN), A., i, 173.
- 4 : 4 : 4 : 4-Tetramethoxytetraphenylethylene (GATTERMANN), A., i, 173.
- oxide (GATTERMANN), A., i, 173.
- 5 : 5 : 5 : 5-Tetramethoxytetraphenylethylene, 4 : 4 : 4 : 4-tetrachloro- (GATTERMANN), A., i, 173.
- Tetramethylacetonedicarboxylic acid, ethylic salt (PETRENKO-KRITSCHENKO, PRSARSCHESKY, and HERSCHKOWITSCH), A., i, 135.
- Tetramethyldiamino- $\alpha$ -azonaphthalene, reduction of ; its picrate (COHN), A., i, 100.
- Tetramethylaminodiphenoxazimium chloride [N : O : NMe<sub>2</sub>Cl = 1 : 2 : 4 ; N : O : NMe<sub>2</sub> = 1 : 2 : 4] (MÖHLAU and UHLMANN), A., i, 168.
- iodide [N : O : NMe<sub>2</sub>I = 1 : 2 : 4 ; N : O : NMe<sub>2</sub> = 1 : 2 : 4] (MÖHLAU and UHLMANN), A., i, 168.
- Tetramethylaminotetraphenylethylene (GATTERMANN), A., i, 174.
- Tetramethyldiaminotriphenylcarbinol, dichloro-, salts of the colour base derived from (GNEHM and BÄNZIGER), A., i, 433.
- Tetramethyldiaminotriphenylmethane, nitro-, reduction of (PRUD'HOMME), A., i, 484.
- Tetramethylammonium hydroxide, action of heat on (HOFMANN LECTURE), T., 666.
- iodide, preparation of (HOFMANN LECTURE), T., 666.
- Tetramethylaniline, nitrile and *iso*-nitrile obtained from (HOFMANN LECTURE), T., 710.
- Tetramethylapionol (CIAMICIAN and SILBER), A., i, 608.
- Tetramethylazoxyaniline (BÖRNSTEIN), A., i, 541.
- Tetramethylbenzene. See Durene.
- Tetramethylberzoic acids (CLAUS), A., i, 230.
- sym*-Tetramethylbenzoylpropionic acid (MÜHR), A., i, 232.
- Tetramethyldehydrobrazilin (HERZIG), A., i, 379.
- Tetramethyldehydrohæmatoxylin and its acetyl derivative (HERZIG), A., i, 379.

- 3 : 5 : 3' : 5'-Tetramethyldiphenyl,  
2 : 2'-diamino-, and its salts and di-  
acetyl derivative (KERSCHBAUM), A.,  
i, 162.
- Tetramethyldiphenylimide and its  
picrate (KERSCHBAUM), A., i, 162.
- 2 : 7 : 2' : 7'-Tetramethyldixanthylene  
(GURGENJANZ and KOSTANECKI), A.,  
i, 52.
- 4 : 5 : 4' : 5'-Tetramethyldixanthylene  
(GURGENJANZ and KOSTANECKI), A.,  
i, 52.
- Tetramethylene-1 : 3-dioxalylic acid.  
See *cyclo*-Butane-1 : 3-dioxalylic  
acid.
- Tetramethylethylene. See Hexylenes.
- Tetramethylethylenelactic acid. See  
 $\beta$ -Hydroxytetramethylpropionic  
acid.
- Tetramethyloxamide, action of nitric  
acid on (FRANCHIMONT), A., i, 602.
- Tetramethylpropylpseudonitrole. See  
Heptanediisopropylmethane,  $\gamma$ -nitro-  
 $\gamma$ -nitroso-.
- Tetramethylpyrazine and its salts  
(BRANDES and STOEHR), A., i, 576.
- Tetramethylsuccinamide (THIELE and  
HEUSER), A., i, 342.
- Tetramethylsuccinic acid (THIELE and  
HEUSER), A., i, 342.
- benzidine derivative of (AUWERS,  
SCHIFFER, and SCHLOSSER), A., i,  
640.
- o*-phenylenediamine derivative of  
(AUWERS, SCHIFFER, and SCHLOS-  
SER), A., i, 640.
- Tetramethylsuccinic acid, ethylic salt  
(THIELE and HEUSER), A., i, 342.
- hydrogen ethylic salt (AUWERS,  
SCHIFFER, and SCHLOSSER), A., i,  
640.
- methyl salt (AUWERS, SCHIFFER,  
and SCHLOSSER), A., i, 640.
- hydrogen methyl salt (AUWERS,  
SCHIFFER, and SCHLOSSER), A., i,  
640.
- Tetramethylsuccinic anhydride (THIELE  
and HEUSER), A., i, 342; (AUWERS,  
SCHIFFER, and SCHLOSSER), A., i, 640.
- Tetramethylsuccino- $\beta$ -naphthyl  
(AUWERS, SCHIFFER, and SCHLOS-  
SER), A., i, 640.
- Tetramethylsuccinonitrile (THIELE and  
HEUSER), A., i, 342.
- Tetramethylsuccino-*p*-tolil (AUWERS,  
SCHIFFER, and SCHLOSSER), A., i,  
640.
- Tetramines, discovery of (HOFMANN  
LECTURE), T., 687.
- Tetramylammonium hydroxide, action  
of heat on (HOFMANN LECTURE),  
T., 666.
- Tetramylammonium iodide (HOFMANN  
LECTURE), T., 666.
- Tetraphenoxyquinol (JACKSON and  
GRINDLEY), A., i, 155.
- Tetraphenoxyquinone (JACKSON and  
GRINDLEY), A., i, 155.
- 1 : 3 : 4 : 6-Tetraphenyldihydropyrid-  
azine, benzoyl derivative of, and  
additive product with nitrous acid  
(SMITH and RANSOM), A., i, 322.
- Tetraphenyldiphenylenepropene  
(KLINGER and LONNES), A., i, 375.
- Tetraphenyldiphenylenepropylene oxide  
(KLINGER and LONNES), A., i,  
375.
- Tetraphenyldiphenylenetrioxymethyl-  
ene (KLINGER and LONNES), A., i,  
375.
- Tetraphenyldisulphoneorthophenylene-  
diamine (HINSBERG and STRUPLER).  
A., i, 47.
- Tetraphenylene-ethylene. See Bidi-  
phenylene-ethylene.
- Tetraphenylene-ethylene dioxides. See  
Dixanthylenes.
- Tetraphenylenepinacolin. See Bidi-  
phenylene-ethylene oxide.
- Tetraphenylmelamine, preparation of  
(HOFMANN LECTURE), T., 716.
- Tetraphenyl-*p*-tolyl diguanide: its hydro-  
chloride and platinochloride (MARCK-  
WALD), A., i, 30.
- 4 : 4 : 4 : 4-Tetrapropoxytetraphenyl-  
ethylene (GATTERMANN), A., i, 173.
- Tetrapyridine cobaltous chloride (REI-  
ZENSTEIN), A., i, 316.
- nickelous chloride (REIZENSTEIN), A.,  
i, 316.
- Tetra-*o*-tolylphenyl diguanide: its hydro-  
chloride and platinochloride (MARCK-  
WALD), A., i, 31.
- Tetrazine derivative,  $C_{14}H_{12}N_4O_2$ , from  
ethylic diphenylcarbazidocarboxylate  
(RUPE), A., i, 429.
- Tetrazole, electrolytic conductivity of  
solutions of (BAUR), A., ii, 144.
- and its sodium and barium deriva-  
tives (THIELE and INGLE), A., i,  
108.
- 5-amino-, and its cyanate and acetyl  
and benzoyl derivatives (THIELE  
and INGLE), A., i, 107.
- Tetrazones (CURTIUS), A., i, 339.
- Tetrazotic acid, amino-, electrolytic con-  
ductivity of, in solution (BAUR),  
A., ii, 144.
- electrolytic conductivity of solu-  
tions of the sodium salt of  
(BAUR), A., ii, 144.
- Tetrazylazoimide: its silver and am-  
monium derivatives (THIELE and  
INGLE), A., i, 107.



- Tetrazylylhydrazine hydrochloride, action of potassium cyanate and of acetophenone on (THIELE and INGLE), A., i, 107.
- Tetrazylsemicarbazide (THIELE and INGLE), A., i, 107.
- 4 : 4 : 4 : 4-Tetretioxytetraphenylethane (GATTERMANN), A., i, 173.
- 4 : 4 : 4 : 4-Tetretioxytetraphenylethylene (GATTERMANN), A., i, 173.
- 5 : 5 : 5 : 5-Tetretioxy-4 : 4 : 4 : 4-tetramethyltetraphenylethylene (GATTERMANN), A., i, 173.
- 5 : 5 : 5 : 5-Tetretioxytetraphenylethylene, 4 : 4 : 4 : 4-tetrachloro- (GATTERMANN), A., i, 173.
- Tetretioylaminodiphenoxazinium chloride [ $N : O : NEt_2Cl = 1 : 2 : 4$ ;  $N : O : NEt_2 = 1 : 2 : 4$ ] (MÖHLAU and UHLMANN), A., i, 168.
- iodide [ $N : O : NEt_2I = 1 : 2 : 4$ ;  $N : O : NEt_2 = 1 : 2 : 4$ ] (MÖHLAU and UHLMANN), A., i, 168.
- Tetretioylammonium hydroxide, discovery of (HOFMANN LECTURE), T., 665.
- action of heat on (HOFMANN LECTURE), T., 666.
- action of ethylic iodide on (HOFMANN LECTURE), T., 666.
- iodide, discovery of (HOFMANN LECTURE), T., 664.
- action of zinc ethyl on (LACHMANN), A., i, 460.
- triiodide (LACHMANN), A., i, 460.
- Tetretioyldiamino- $\alpha$ -azonaphthalene and its picrate (COHN), A., i, 100.
- Tetretioylphosphonium hydroxide, preparation of (HOFMANN LECTURE), T., 672.
- iodide, discovery of (HOFMANN LECTURE), T., 602.
- preparation of (HOFMANN LECTURE), T., 672.
- Tetretioylthiodiamine (SCHENCK), A., i, 427.
- Tetric acid (*tetric acid*, *methyltetric acid*) (WOLFF), A., i, 87; (FREER), A., i, 277, 278.
- action of nitrous acid on (WOLFF and SCHWABE), A., i, 524.
- oxidation products of (WOLFF), A., i, 87.
- Tetric acid, anilide of, and its nitroso-derivatives (WOLFF), A., i, 87.
- benzoyl derivative (FREER), A., i, 278.
- Tetric acid, bromo-, and its decomposition products (WOLFF), A., i, 87.
- nitroso- (WOLFF), A., i, 88.
- Tetric chloride (FREER and MILLER), A., i, 278.
- Tetric acid. See Tetric acid.
- Tetric acid, formation of, from zinc and  $\alpha\beta$ -dichlorocrotonic acid (SZENIC and TAGGESELL), A., i, 81.
- action of water on (DESGREZ), A., i, 2.
- Tetric acid (WOLFF), A., i, 87.
- hydrazone and benzoyl derivative of (WOLFF and SCHWABE), A., i, 523.
- oxime of (WOLFF and SCHWABE), A., i, 524.
- Tetric acid, bromo- (WOLFF and SCHWABE), A., i, 522.
- action of nitrous acid on (WOLFF and SCHWABE), A., i, 524.
- reduction product of (WOLFF and SCHWABE), A., i, 523.
- di-bromo-, action of ammonia on (WOLFF and SCHWABE), A., i, 524.
- spontaneous decomposition of (WOLFF and SCHWABE), A., i, 523.
- Thallium, solution and diffusion of, in mercury (HUMPHREYS), T., 1681; P., 1896, 220.
- vapour density of (BILZ), A., ii, 152.
- a new mineral (lorandite) containing (KRENNER), A., ii, 30.
- physiological action of (CURCI), A., ii, 491.
- Thallium hydroxide, electrochemical preparation of (LORENZ), A., ii, 647.
- peroxide electrodes in galvanic cells (TOWER), A., ii, 142.
- perthiomolybdate (HOFMANN), A., ii, 476.
- Thallous fluoroxymolybdate (MAURO), A., ii, 248.
- fluoroxymolybdate (MAURO), A., ii, 248.
- Thaumasite from New Jersey (PENFIELD and PRATT), A., ii, 367; (PISANI), A., ii, 530.
- Thenardite (?) from Argentina (SCHICK-ENDANTZ), A., ii, 480.
- Theobromine, action of potassium hydroxide on (FISCHER), A., i, 12, 13.
- compound of, with adenine in tea (KRÜGER), A., i, 450.
- behaviour of, in the organism (ALBANESE), A., ii, 319.
- physiological action of (ALBANESE), A., ii, 492.
- periodides, preparation and properties of (SHAW), T., 102; P., 1895, 177.

- Theobromine, estimation of, in presence of caffeine (DENIGÈS), A., ii, 387.
- Theophylline, production of, from chlorotheophylline and bromotheophylline (FISCHER and ACH), A., i, 263.
- bromo- (FISCHER and ACH), A., i, 263.
- chloro-: its sodium and silver derivatives (FISCHER and ACH), A., i, 263.
- Thermochemistry. See Heat.
- Thianthrene. See Diphenylene bisulphide.
- dioxide. See Diphenylene disulphoxide.
- Thiazoline  $\mu$ -hydrosulphide (GABRIEL and STELZNER), A., i, 121.
- Thiazolyl  $\mu$ -sulphide (GABRIEL and STELZNER), A., i, 121.
- Thiazylpropionic acid,  $\mu$ -amino-, methylic salt (CONRAD and KREICHGAUER), A., i, 409.
- Thienyltriphenylmethane (WEISSE), A., i, 565.
- bromo- (WEISSE), A., i, 565.
- chloro- (WEISSE), A., i, 565.
- iodo- (WEISSE), A., i, 565.
- Thiethylimine (LENGFELD and STIEGLITZ), A., i, 79.
- Thiobiazoline, derivatives of (BUSCH), A., i, 190.
- Thiocarbanil, magnetic rotatory power, &c., of (PERKIN), T., 1124, 1204, 1244.
- Thiocarbamides, symmetrical disubstituted, action of alkali on (DIXON), T., 857; P., 1896, 100.
- Thiocarbanilide, behaviour of, towards phenylhydrazine (WALTHER), A., i, 543.
- Thiocarbimides, aliphatic, action of mercuric chloride on (PONZIO), A., i, 636.
- ethereal, synthesis of (HOFMANN LECTURE), T., 711.
- Thiocarbonic anhydride (DUNLAP), A., i, 471.
- Thiocarbonylacetoacetic acid (EMMERLING), A., i, 127.
- ethylic salt, action of lead oxide on (EMMERLING), A., i, 127.
- dibromo- and tribromo- (EMMERLING), A., i, 127.
- Thiocyanates, absence of, in the saliva of dog and horse (MUNK), A., ii, 50.
- Thiocyanobenzenediazonium chlorides. See Benzenediazonium chloride, thiocyno-.
- Thio-ether,  $C_{15}H_{13}O_2NS$  (BRÜGGEMANN), A., i, 356.
- Thiophen, magnetic rotatory power, &c., of (PERKIN), T., 1117, 1204, 1244.
- condensation of, with benzaldehyde (TÖHL and NÄHKE), A., i, 690.
- dinitro-, silver salt of (MEYER), A., i, 419.
- Thiophensynaldoxime acetate, velocity of formation of nitrile and acetic acid from (LEY), A., ii, 243.
- $\beta$ -Thiophencarboxylic acid, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- Thiophenetyltetrahydroquinazolines. See Phenethylthiotetrahydroquinazolines.
- Thiorufic acid, probable formula of (EMMERLING), A., i, 127.
- Thiosemicarbazides and thiocarbazides, suggestions as to the nomenclature of (DIXON), T., 861.
- "Thiosinnammoniumoxydhydrat, bromo-" (DIXON), T., 21.
- Thio-derivatives. See:—
- Acetic acid.
  - Allophanic acid.
  - Benzamide.
  - Benzoic acid.
  - Benzoic acid thionamide.
  - $\beta$ -Benzylcrotonic acid and  $\beta$ -benzylisocrotonic acid.
  - Benzylxybenzaldehyde.
  - $\beta$ -Benzylpropylene.
  - Carbanilide (*s*-Diphenylthiocarbamide).
  - o*- and *p*-Cresols (*o*- and *p*-Tolylmercaptans).
  - Cyanuric acid.
  - Dehydrotoluidine.
  - Dimethylamine.
  - Dimethyluramil.
  - Diphenylamine.
  - Eugenol.
  - Formanilide.
  - Guaiaicol.
  - Hydantoinacetic acid.
  - Malic acid.
  - Menthol.
  - Methoxyphenyltetrahydroquinazoline.
  - Naphthamide.
  - Naphthol (4-Naphthyl mercaptan).
  - Naphthyltetrahydroquinazoline.
  - Phenol (Phenyl mercaptan).
  - Phenoxybutyramide.
  - Phenylcarbamic acid.
  - Phenylcarbazinic acid bisulphide.
  - Phenylcarbimide.
  - Phenylsemicarbazide.
  - Phenyltetrahydroquinazolines.
  - Piperidine.
  - Quinol.

Thio-derivatives. See:—

Resorcinol.

Salicylic acid.

Sinamine (Allylthiocarbamide).

Thymol.

Tri-anisaldehyde.

Tri-benzaldehyde.

Tri-benzoylvanillin.

Tri-cumaldehyde.

Tri-dimethylgentisic aldehyde.

Tri-formaldehyde.

Tri-gentisic aldehyde.

Tri-methylvanillin.

Tri-piperonal.

Tri-tolualdehyde.

Tri-vanillin.

Uramil.

Veratrole anilide.

Thorite from Norway (SCHMELCK), A., ii, 186.

Thorium minerals in Norway

(SCHMELCK), A., ii, 186.

carbide (MOISSAN and ÉTARD), A., ii, 423.

niobate (LARSSON), A., ii, 564.

nitrate, commercial, examination of (FRESSENIUS and HINTZ), A., ii, 677.

oxide, new source of (PHIPSON), A., ii, 422.

dioxide, action of phosphorus pentachloride on (SMITH and HARRIS), A., ii, 179.

Thorium, separation of cerium from (FRESSENIUS and HINTZ), A., ii, 677.

separation of, from yttrium, lanthanum, and neodymium (FRESSENIUS and HINTZ), A., ii, 677.

*Thuja obtusa*, effect of lime and magnesia on development of (LOEW and HONDA), A., ii, 446.

Thyme oil, analysis of (HIRSCHSOHN), A., ii, 223.

Thymic acid, barium salt, and properties of (KOSSEL and NEUMANN), A., i, 658.

Thymin, separation of, from spermatozoa (KOSSEL), A., ii, 537.

Thymol from dibromomenthone (BECKMANN and EICKELBERG), A., i, 313.

magnetic rotatory power, &c., of (PERKIN), T., 1064, 1132, 1183, 1239.

effect of, on the freezing point of dilute soda solution (GOLDSCHMIDT and GIRARD), A., i, 474.

crystalline form of (POPE), P., 1896, 142.

compound of, with aluminium chloride (PERRIER), A., i, 354.

Thymol, amino-, from hydroxydihydrocarvoxime (WALLACH), A., i, 571.

*p*-amino-, and its hydrochloride and acetyl and benzoyl derivatives (PLANCHER), A., i, 358.

substance obtained from, by condensation with *m*-benzaldehyde (PLANCHER), A., i, 358.

nitramino- (SODERI), A., i, 359.

benzoate (SODERI), A., i, 359.

thio- (VOSWINKEL), A., i, 379.

Thymoquinonequinolhemiacetal (JACKSON and OENSLAGER), A., i, 294.

Thymotic acid, nitro- (HEYL and MEYER), A., i, 146.

Thymus gland, presence of iodine in (BAUMANN), A., ii, 487.

Thymylic amylic ether (WELT), A., i, 333.

Thyreo-antitoxin, separation and properties of (FRÄNKEL), A., ii, 119.

Thyroid gland, presence of iodine in the (BAUMANN), A., ii, 263, 487.

iodine compounds of (BAUMANN and ROOS), A., ii, 487.

extraction of thyreo-antitoxin from (FRÄNKEL), A., ii, 119.

Thyroidin (BAUMANN), A., ii, 263, 487; (BAUMANN and ROOS), A., ii, 487.

properties and compounds of (BAUMANN and ROOS), A., ii, 487.

physiological action of (ROOS), A., ii, 488.

Tiffanyite (KUNZ), A., ii, 306.

Tin, specific heat of (BARTOLI and STRACCIATI), A., ii, 145.

rate of diffusion of, in mercury (HUMPHREYS), T., 251; P., 1896, 9.

veins, formation of (GAUTIER), A., ii, 529.

Tin-alloys with copper (FOERSTER), A., ii, 177.

solution and diffusion in mercury of (HUMPHREYS), T., 1682; P., 1896, 220.

with lead, solution and diffusion of, in mercury (HUMPHREYS), T., 1681; P., 1896, 220.

with nickel and aluminium (GAUTIER), A., ii, 602.

with silver, melting points of (GAUTIER), A., ii, 646.

Tin dioxide, crystalline forms of (ARZRUNI), A., ii, 307.

Orthostannic acid, electrochemical preparation of (LORENZ), A., ii, 647.

Tin thiophosphide (GRANGER), A., ii, 365.

- Tin sulphide, electrochemical preparation of (LORENZ), A., ii, 648.  
 physical change produced by gently heating (SPRING), A., ii, 290.
- Stannic salts, action of nitric peroxide on (THOMAS), A., ii, 365.  
 bromide, heat of combination of, with water in the liquid and solid states (PICKERING), A., ii, 148.  
 chloride, preparation of (LORENZ), A., ii, 28.  
 iodide (THOMAS), A., ii, 608.
- Stannous chloride, velocity of the reaction between ferric chloride and (NOYES and SCOTT), A., ii, 158.
- Tin, detection of arsenic in, when lead is present (DE KONINGH), A., ii, 273.  
 estimation of (JANNASCH and LEHNERT), A., ii, 548; (BROOKS), A., ii, 579.  
 estimation of, by electrolysis (ENGELS), A., ii, 276.  
 estimation of, in alloys with lead, antimony, and arsenic (ANDREWS), A., ii, 501.  
 separation of mercury from (JANNASCH and LEHNERT), A., ii, 546.
- Tin-slag, analysis of (BAILEY), A., ii, 451.
- Tissue, formation of, in plants (CROSS, BEVAN, and SMITH), T., 1605; P., 1896, 174.  
 connective mucin from (CRITTENDEN and GIES), A., i, 456.
- Tissues, estimation of urea in (KAUFMANN), A., ii, 130; (SCHÖNDOERFF), A., ii, 131.
- Titanium, crystallised (LÉVY), A., ii, 304.
- Titanium alloys of, with aluminium (MOISSAN), A., ii, 602.
- Titanium fluoride (PICCINI), A., ii, 178.  
 potassium fluorides (MARCHETTI), A., ii, 20.  
 dioxide, separation of ferric oxide from (FRENZEL), A., ii, 112.
- Titanic acid, estimation of, volumetrically in ores (WELLS and MITCHELL), A., ii, 502.
- Titanium silicide (LÉVY), A., ii, 304.  
 cesium alum (PICCINI), A., ii, 365.
- Titanium, detection of (PENNINGTON), A., ii, 306.  
 estimation of, precautions in (HILLEBRAND), A., ii, 222.  
 interference of, in the estimation of phosphorus (PATTINSON and PATTERSON), A., ii, 389.
- Tobacco, estimation of ammonia and nicotine in (KISSLING), A., ii, 401; (VEDRODI), A., ii, 630.
- Tobacco. } See Agricultural chemistry  
 Tofu. } try (Appendix).
- Tolane. See Diphenylacetylene.
- Tolidine, estimation of (VAUBEL), A., ii, 507.
- p*-Tolilbenzoin, preparation of (MILLER and PLÖCHL), A., i, 609.
- Toluene, discovery of, in coal-tar (HOFMANN LECTURE), T., 693.  
 separation of, from coal-tar naphtha (HOFMANN LECTURE), T., 598.  
 magnetic rotatory power, &c., of (PERKIN), T., 1064, 1082—1085, 1125, 1191, 1241.  
 heat of evaporation of (MARSHALL and RAMSAY), A., ii, 349.
- Toluene, triamino-, and its salts (PALMER and BRENKE), A., i, 539.  
*o*- and *p*-bromo-, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1131, 1203, 1243.  
 2 : 4-bromiodo- (HIRTZ), A., i, 531.  
 4 : 2-bromiodo- (HIRTZ), A., i, 531.  
 2 : 4 : 6-bromiodonitro- (HIRTZ), A., i, 531.  
 bromo-*m*-iododinitro- (m. p. 139—141°) (HIRTZ), A., i, 531.
- p*-bromo-*o*-nitro- (HANTZSCH and SCHULTZE), A., i, 672.
- di*bromotrinistro-, reduction of (PALMER and BRENKE), A., i, 539.
- o*- and *p*-chloro-, magnetic rotatory power, &c., of (PERKIN), T., 1131, 1203, 1243.
- o*-, *p*-, *m*-, chloro- (DE CONINCK), A., i, 473.
- m*-iodo-, product of the action of bromine on (HIRTZ), A., i, 531.
- p*-iodoxy-, preparation of (WILLGERODT), A., i, 533.
- o*-nitro-, melting point of (v. SCHNEIDER), A., ii, 290.
- o*- and *p*-nitro-, magnetic rotatory powers, &c., of (PERKIN), T., 1095, 1131, 1162, 1181, 1239.
- exo*-nitro- (HOLLEMANN), A., i, 148.  
 preparation of (HANTZSCH and SCHULTZE), A., i, 353.  
 isomerism of (HANTZSCH and SCHULTZE), A., i, 353.
- exo-m*-dinitro-, and its sodium and potassium derivatives (HOLLEMANN), A., i, 148.  
 compound of, with ammonia (HOLLEMANN), A., i, 147.
- 1 : 2 : 3-dinitroso- (ZINCKE), A., i, 430.
- 1 : 3 : 4-dinitroso- (ZINCKE), A., i, 430.

- o*-Tolueneazo-*o*-cresetol, reduction of (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 25.
- o*-Tolueneazo-*m*-cresetol, reduction of (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 26.
- m*-Tolueneazo-*o*-cresetol, reduction of (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 26.
- m*-Tolueneazo-*m*-cresetol, reduction of (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 27.
- p*-Tolueneazo-*o*-cresetol, reduction of (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 25.
- p*-Tolueneazo-*m*-cresetol, reduction of, and stilbazonium base of product (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 27.
- o*-Tolueneazo-*m*-cresol (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 26.
- m*-Tolueneazo-*o*-cresol (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 26.
- m*-Tolueneazo-*m*-cresol (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 27.
- p*-Tolueneazo-*m*-cresol (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 27.
- o*-Tolueneazophenetol, reduction of (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 24.
- m*-Tolueneazophenetol, reduction of (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.
- p*-Tolueneazophenetol, reduction of (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.
- p*-Tolueneazophenol benzyl ether, reduction of (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.
- isobutyl ether, reduction of (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.
- p*-Toluenediazoamidobenzenesulphonic acid, sodium, disodium, calcium, barium, and toluidine salts (SCHRAUBE and FRITSCH), A., i, 221.
- 1 : 3 : 4-Toluenedicarboxylic acid. See *α*-Methylphthalic acid.
- p*-Toluenedisulphoxide (MEYER), A., i, 684.
- p*-Toluenesulphinic acid, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- aniline and ammonium salts of (MEYER), A., i, 684.
- p*-Toluenesulphonamide, dichloro- (KASTLE, KEISER, and BRADLEY), A., i, 555.
- o*-Toluenesulphoneglycocine, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- p*-Toluenesulphoneglycocine, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- o*-Toluic acid, ethylic salts, magnetic rotatory power of (PERKIN), T., 1096, 1097, 1130, 1177, 1238.
- o*-Toluic peroxide (VANINO and THIELE), A., i, 597.
- m*-Toluic acid, tetrachloro- (RUPP), A., i, 618.
- p*-Toluic acid from turmerole (JACKSON and WARREN), A., i, 387.
- ethylic salt, magnetic rotatory power of (PERKIN), T., 1096, 1097, 1130, 1177, 1238.
- tetrachloro- (RUPP), A., i, 618.
- o*-Toluidine, refraction equivalents of, at different temperatures (PERKIN), T., 4; P., 1895, 199.
- magnetic rotatory power of (PERKIN), T., 1104, 1131, 1155, 1159, 1210, 1245.
- amidosulphonate (PAAL and JÄNICKE), A., i, 235.
- estimation of water in (DOBRINER and SCHRANZ), A., ii, 403.
- m*-Toluidine, magnetic rotatory powers, &c., of (PERKIN), T., 1131, 1210, 1245.
- p*-Toluidine, discovery of (HOFMANN LECTURE), T., 646.
- preparation of (HOFMANN LECTURE), T., 597.
- refraction equivalents of, at different temperatures (PERKIN), T., 4; P., 1895, 199.
- magnetic rotatory power of (PERKIN), T., 1131, 1155, 1159, 1209, 1245.
- heat of solution of, in ethylic alcohol, chloroform, and toluene (SPEYERS), A., ii, 411.
- action of cyanogen on (HOFMANN LECTURE), T., 590, 649.
- oxidation product of (BARSZCZOWSKY), A., i, 357.
- colouring matter obtained by oxidation of (HOFMANN LECTURE), T., 605.
- p*-Toluidine amidosulphonate (PAAL and JÄNICKE), A., i, 235.
- p*-Toluidine, estimation of water in (DOBRINER and SCHRANZ), A., ii, 403.
- Toluidines, estimation of, in aniline (DOBRINER and SCHRANZ), A., ii, 402.

- o*-Toluido-*p*-sulphobenzoic acid and its barium salt (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 373.
- m*-Toluido-*p*-sulphobenzoic acid and its barium salt (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 373.
- p*-Toluido-*p*-sulphobenzoic acid and its barium salt (REMSEN, HARTMAN, and MUCKENFUSS), A., i, 373.
- o*-Toluidotoluquinone (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 26.
- m*-Toluidotoluquinone (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 26.
- p*-Toluido-*p*-tolylaposafranine (FISCHER and HEPP), A., i, 324.
- o*-Tolunitrile, magnetic rotatory powers, &c., of (PERKIN), T., 1096, 1137, 1206, 1244.
- p*-Tolunitrile, preparation of (HOFMANN LECTURE), T., 705.  
magnetic rotatory power of (PERKIN), T., 1096, 1137, 1206, 1244.
- o*-Toluoylalanine, heat of combustion of (STOHMANN and SCHMIDT), A., ii, 466.
- p*-Toluoylalanine, heat of combustion of (STOHMANN and SCHMIDT), A., ii, 466.
- Toluquinone, trichloro- (ELBS and BRUNNSCHWEILER), A., i, 214.
- o*-Toluric acid, heat of combustion of (STOHMANN and SCHMIDT), A., ii, 466.
- m*-Toluric acid, heat of combustion of (STOHMANN and SCHMIDT), A., ii, 466.
- p*-Toluric acid, heat of combustion of (STOHMANN and SCHMIDT), A., ii, 466.
- p*-Tolyl *o*-acetoxystyryl ketone (KOSTANECKI), A., i, 240.
- p*-Tolyl  $\alpha$ -coumaryl ketone (KOSTANECKI), A., i, 240.
- p*-Tolyl *o*-hydroxystyryl ketone and its acetyl derivative and dibromide (KOSTANECKI), A., i, 240.
- p*-Tolyl methyl ketone, condensation of, with benzaldehyde (KOSTANECKI and ROSSBACH), A., i, 688.
- p*-Tolyl styryl ketone (KOSTANECKI and ROSSBACH), A., i, 688.
- $\downarrow$ -Tolylacetic acid, sodium salt of (BUCHNER), A., i, 230.  
tetrabromide (BUCHNER), A., i, 230.
- o*-Polyallylthiocarbamide, action of bromine on (DIXON), T., 852; P., 1896, 99.
- u*-*o*-Tolylaminopentthiazoline,  $\gamma$ -bromo- (DIXON), T., 28; P., 1895, 216.
- u*-*p*-Tolylaminopentthiazoline,  $\gamma$ -bromo- (DIXON), T., 27; P., 1895, 216.
- p*-Tolylbenzylidene methyl ketone. See *p*-Tolyl styryl ketone.
- Tolylcarbimide, preparation of (HOFMANN LECTURE), T., 715.
- ab*-*o*-Tolylcarboxyethylthiocarbamide (DORAN), T., 327; P., 1896, 74.
- ab*-*p*-Tolylcarboxyethylthiocarbamide (DORAN), T., 328; P., 1896, 74.
- Tolylenediamine, discovery of (HOFMANN LECTURE), T., 638.
- p*-Tolyl-3-ethoxy-*o*-phenylenediamine: its azimide and its stilbazonium base (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.
- m*-Tolyl-5-ethoxy-*o*-phenylenediamine: its hydrochloride, azimide, stilbazonium base, methenyl derivative, with its nitrate (JACOBSEN, DÜSTERBEHN, KLEIN, and SCHKOLNIK), A., i, 25.
- o*-Tolyl-6-ethoxy-1 : 3 : 4-tolylenediamine: its hydrochloride, thiocarbonyl compound, and stilbazonium base (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 26.
- m*-Tolyl-6-ethoxy-1 : 3 : 4-tolylenediamine: its azimide and stilbazonium base (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 26.
- p*-Tolyl-6-ethoxy-1 : 3 : 4-tolylenediamine: its azimide, thiocarbonyl compound, and stilbazonium base (JACOBSEN, HEBER, HENRICH, and SCHWARZ), A., i, 26.
- o*-Tolylformimido-ethyl ether (WHEELER and BOLTWOOD), A., i, 478.
- p*-Tolylfurfurylidene methyl ketone (KOSTANECKI and PODRAJANSKY), A., i, 689.
- p*-Tolylglyoxylic acid and its ethylic salt (BOUVEAULT), A., i, 616.  
hydrazone of (BOUVEAULT), A., i, 650.
- p*-Tolylhydroxymethylsulphone (MEYER), A., i, 684.
- Tolylc ethereal salts, extraction of (DRAGENDORFF), A., ii, 278.
- o*-Tolylc amylic ether (WELT), A., i, 333.  
mercaptan (VOSWINKEL), A., i, 378.  
methylc ether, magnetic rotatory power of (PERKIN), T., 1127, 1128, 1130, 1159, 1187, 1240.
- m*-Tolylc amylic ether (WELT), A., i, 333.  
methylc ether, magnetic rotatory power of (PERKIN), T., 1127, 1128, 1130, 1159, 1187, 1240.
- p*-Tolylc allylic ether, magnetic rotatory power, &c., of (PERKIN), T., 1141, 1226, 1247.  
amylic ether (WELT), A., i, 333.

- p*-Tolyl mercaptan (VOSWINKEL), A., i, 378.  
 mesitylic sulphide (BOURGOIS), A., i, 18.  
 methyle ether, magnetic rotatory powers, &c., of (PERKIN), T., 1127, 1128, 1130, 1159, 1187, 1240.  
*o*-xylylic sulphide (BOURGOIS), A., i, 18.  
*m*-xylylic sulphide (BOURGOIS), A., i, 18.  
*p*-xylylic sulphide (BOURGOIS), A., i, 18.  
 Tolyketoidene (SCHUYTEN), A., i, 442.  
*d*-iodo- (SCHUYTEN), A., i, 442.  
*p*-Tolylmethylnitramine, *o*-nitro- (PINNOW), A., i, 161.  
*d*-nitro- (ROMBURGH), A., i, 478.  
*p*-Tolylmethylnitrosamine, *o*-nitro- (PINNOW), A., i, 161.  
*d*-nitro- (ROMBURGH), A., i, 478.  
*p*-Tolyl-*o*-phenylenediamine (FISCHER), A., i, 628.  
*p*-Tolylsuccinimide, action of barium hydroxide on (AUWERS and HABGER), A., i, 640.  
 velocity of decomposition of, by hydrochloric acid, (MIOLATI), A., ii, 242.  
*o*-Tolylsulphamic acid, ammonium salt of (PAAL and JANICKE), A., i, 235.  
*p*-Tolylsulphamic acid and its ammonium salt (PAAL and JANICKE), A., i, 235.  
 3'-*o*-Tolyltetrahydroquinazoline (BUSCH), A., i, 507.  
 3'-*p*-Tolyltetrahydroquinazoline (BUSCH), A., i, 507.  
*o*-Tolylthiourea (DIXON), T., 858.  
 Topaz from New South Wales (LIVERSIDGE), A., ii, 658.  
 synthesis of (REICH), A., ii, 531.  
 Tourmaline from Bohemia (KATZER), A., ii, 188.  
 Trachea, action of drugs on the secretion of (CALVERT), A., ii, 667.  
 Trachyte from East Lothian (HATCH), A., ii, 116.  
 tridymite-, from Lyttelton, N.Z. (MARSHALL), A., ii, 193.  
 Transition point. See Heat, transition temperature.  
 Trehalose, digestion of (BOURQUELOT and GLEY), A., ii, 315.  
 Tremolite from Styria (CANAVAL), A., ii, 483.  
 Triacetaminoxime (HARRIES), A., i, 318.  
 Triacetone-*d*-glucoheptitol (SPEIER), A., i, 77.  
 Triacetotetrazylhydrazine (THIELE and INGLE), A., i, 107.  
 Triacetoxhydroxydiphenylacetic acid (HEWITT and POPE), T., 1267; P., 1896, 151.  
 Triacetyl-leucodrin (HESSE), A., i, 495.  
 Trianilinephosphine hydroxide (MICHAELIS and SILBERSTEIN), A., i, 344.  
 oxide (MICHAELIS and SILBERSTEIN), A., i, 344.  
 Tri-anisaldehyde, *m*-nitrotrithio- (WÖRNER), A., i, 227.  
*d*-nitrotrithio- (WÖRNER), A., i, 227.  
 Triazoacetic acid, and hydrolysis of (CURTIUS), A., i, 338.  
 Triazole compounds (ANDREOCCI), A., i, 221.  
 1 : 2 : 3-Triazoledicarboxylic acid (ZINCKE and HELMERT), A., i, 550.  
 Tri-benzaldehyde,  $\alpha$ -trithio-*o*-bromo- (WÖRNER), A., i, 226.  
 $\alpha$ -trithio-*p*-bromo- (WÖRNER), A., i, 226.  
 $\beta$ -trithio-*o*-bromo- (WÖRNER), A., i, 226.  
 $\beta$ -trithio-*p*-bromo- (WÖRNER), A., i, 227.  
 Tribenzenesulphonohydroxylamide, preparation of (PILOTY), A., i, 556.  
 Tribenzoyl- $\beta$ -galactochloral (HANNRIOT), A., i, 519.  
 Tribenzoylmethane,  $\alpha$ - and  $\beta$ -forms of (CLAISEN and FALK), A., i, 559.  
 benzoate of, and its anilide (CLAISEN and FALK), A., i, 560.  
*p*-bromobenzoate of, and its  $\alpha$ -naphthoate (CLAISEN and FALK), A., i, 560.  
 Tribenzoylmethane, *p*-bromo- (CLAISEN and FALK), A., i, 559.  
 Tribenzoyltrimethylenetriamine (DUDEN and SCHARFF), A., i, 124.  
 Tribenzoylvanillin, trithio- (WÖRNER), A., i, 226.  
 $\alpha$ -Tribenzyltetrazylhydrazine (THIELE and INGLE), A., i, 110.  
 $\beta$ -Tribenzyltetrazylhydrazine (THIELE and INGLE), A., i, 110.  
 Tricarballic acid (BISCHOFF), A., i, 468.  
 Tricarbonylpiperazine (ROSDALSKY), A., i, 257.  
 Trichlorhydrin, action of silver cerotate on (MARIE), A., i, 347.  
 Tri-cumaldehyde, *m*-nitrotrithio- (WÖRNER), A., i, 227.  
 $\alpha$ -trithio- (WÖRNER), A., i, 226.  
 $\beta$ -trithio- (WÖRNER), A., i, 226.  
 Tri-dimethylgentisic aldehyde,  $\alpha$ -trithio- (WÖRNER), A., i, 226.  
 $\beta$ -trithio- (WÖRNER), A., i, 226.  
 Tridymite-trachyte from Lyttelton, N.Z. (MARSHALL), A., ii, 193.

- Triethylamine, discovery of (HOFMANN LECTURE), T., 661.  
 action of ethylic bromide on (HOFMANN LECTURE), T., 663.  
 action of ethylic iodide on (HOFMANN LECTURE), T., 664.  
 partial oxidation of (DE HAAS), A., i, 122.  
 dibromide, action of zinc ethyl on (LACHMANN), A., i, 460.
- Triethylamylammonium hydroxide, action of heat on (HOFMANN LECTURE), T., 666.
- Triethylcarbinol. See Heptylic alcohol.
- Triethylchrysaniine, discovery of (HOFMANN LECTURE), T., 622.
- Triethyldiethylenetriamine, discovery of (HOFMANN LECTURE), T., 687.
- Triethylenediamine (HOFMANN LECTURE), T., 684.
- Triethylenetriamine, discovery of, and its salts (HOFMANN LECTURE), T., 686.
- Triethylmelanine, preparation of (HOFMANN LECTURE), T., 716.
- Triethylphosphine, preparation of (HOFMANN LECTURE), T., 602, 671.  
 absorption of oxygen by (JORISSEN), A., i, 589.  
 action of carbon tetrachloride on (HOFMANN LECTURE), T., 680.  
 action of ethylic chloracetate on (HOFMANN LECTURE), T., 681.  
 action of ethylenic dibromide on (HOFMANN LECTURE), T., 678.  
 action of iodoform on (HOFMANN LECTURE), T., 680.  
 action of sulphur compounds on (HOFMANN LECTURE), T., 674.  
 compound of, with carbon bisulphide, and its derivatives (HOFMANN LECTURE), T., 675.  
 compound of, with phenylthiocarbimide, and its derivatives (HOFMANN LECTURE), T., 676.
- Triethylphosphine oxide, preparation of (HOFMANN LECTURE), T., 672.  
 compound of, with platonic chloride (HOFMANN LECTURE), T., 674.  
 compound of, with zinc iodide (HOFMANN LECTURE), T., 674.  
 oxychloride, preparation of (HOFMANN LECTURE), T., 674.  
 sulphide, preparation of (HOFMANN LECTURE), T., 675.
- Triethylrosaniline, compound of, with ethylic iodide (HOFMANN LECTURE), T., 617.
- Triethyltriethylenetriamine, discovery of (HOFMANN LECTURE), T., 687.
- Triethylvinylphosphonium hydroxide, preparation of (HOFMANN LECTURE), T., 678.
- Trifolium. See Agricultural chemistry (Appendix).
- Tri-gentisic aldehyde, *trithio-* (WÖRNER), A., i, 226.
- Trihydroxybenzophenone. See Alizarin yellow, A.
- Trihydroxybutane, tertiary, nitro- (HENRY), A., i, 4.
- Trihydroxyglutaric acid, anhydride of (BADER), A., i, 336.
- l*-Trihydroxyglutaric acid (FISCHER), A., i, 526.
- Trihydroxylamine, hydriodide of, and the action of heat on (DUNSTAN and GOULDING), T., 840; P., 1896, 73.
- Trihydroxymethane, behaviour of, towards acetic anhydride (GINSBERG), A., i, 447.
- 1 : 2 : 3-Trihydroxyphenylsulphone (HINSBERG and HIMMELSCHEN), A., i, 685.
- 1 : 3 : 4-Trihydroxyquinoline, 2-chloro-, and its hydrochloride (ZINCKE and WINZHEIMER), A., i, 499.
- 1 : 2' : 2-Trihydroxyquinoline (DIAMANT), A., i, 105.
- Trihydroxyterpane (VON BABYER and BLAU), A., i, 54.
- Trihydroxyxanthone, dimethyl ether, synthesis of (KOSTANECKI and TAMBOR), A., i, 369.
- 1 : 3 : 4-Triketohydroquinoline, 2-di-chloro-, hydrate of, and its hydrochloride (ZINCKE and WINZHEIMER), A., i, 499.
- Trimellitic acid from methylpurpuraxanthin (SCHUNCK and MARCHLEWSKI), T., 70; P., 1895, 203.
- Trimethoxycoumarin (BIGINELLI), A., i, 370.
- Trimethoxycoumarin- $\beta$ -carboxylic acid and its methylic salt (BIGINELLI), A., i, 370.
- Trimethylacetic acid. See Valeric acids.
- Trimethylacrylic acid. See Hexenoic acids.
- Trimethylallylammonium chloride, action of heat on (HOFMANN LECTURE), T., 670.
- Trimethylisallylene. See Hexinenes.
- Trimethylallylthiocarbamide dibromide (GADAMER), A., i, 141.
- Trimethylamine, action of halogens on (REMSEN and NORRIS), A., i, 336.  
 action of iodine on, in presence of alkali (DELÉPINE), A., i, 589.  
 behaviour of, with Nessler's reagent (DELÉPINE), A., i, 589.



- Trimethylamine, partial oxidation of (DE HAAS), A., i, 122.  
 salt of, action of iodine and alkali iodide on (DELÉPINE), A., i, 589.
- Trimethylamine dibromide (REMSEN and NORRIS), A., i, 336.  
 dichloride (REMSEN and NORRIS), A., i, 336.  
 diiodide (REMSEN and NORRIS), A., i, 336.  
 hydrochloride and picrate (DELÉPINE), A., i, 589.
- Trimethylapionolic acid (CIAMICIAN and SILBER), A., i, 608.
- Trimethylazoxyaniline (BÖRNSTEIN), A., i, 542.
- 2 : 3 : 4-Trimethylbenzaldehyde, preparation of (LUCAS), A., i, 418.
- 2 : 3 : 4-Trimethylbenzaldoximes (LUCAS), A., i, 418.
- 1 : 2 : 3-Trimethylbenzene. See Hemimellitene.
- 1 : 3 : 4-Trimethylbenzene. See  $\psi$ -Cumene.
- 1 : 2 : 3-Trimethylbenzoic acid. See Prehenitylic acid.
- 2 : 4 : 6-Trimethylbenzoic acid. See Mesitylenecarboxylic acid.
- Trimethylbenzoic acids, preparation of (LUCAS), A., i, 418.
- as*-Trimethylbenzoylpropionic acid (MUHR), A., i, 231.
- Trimethylbromethylammonium bromide, preparation of (HOFMANN LECTURE), T., 680.
- Trimethylisobutylammonium platinochloride, crystalline form of (HOFMANN LECTURE), T., 671.
- Trimethylchrysianiline, discovery of (HOFMANN LECTURE), T., 622.
- Trimethylcyanuric acid (SCHIFF), A., i, 530.
- Trimethyldehydrobrazilin and its acetyl derivative (HERZIG), A., i, 379.
- Trimethylene. See *cyclo*-Propane.
- Trimethylene- $\beta$ -dinaphthylsulphone (TROEGER and ARTMANN), A., i, 570.
- Trimethylenephenylenediamine (HINSBERG and STUPLER), A., i, 48.  
 dinitroso- (HINSBERG and STUPLER), A., i, 48.
- Trimethylenepiperylum bromide and its salts (GABRIEL and STELZNER), A., i, 703.
- Trimethylenetriamine, tribenzoyl derivative of (DUDEN and SCHARFF), A., i, 124.  
*tri*amino- (DUDEN and SCHARFF), A., i, 123.  
 triorthohydroxybenzylidene derivative of (DUDEN and SCHARFF), A., i, 123.
- Trimethylenic glycol (NOYES and WATKINS), A., i, 115.
- 1 : 3 : 5 : 2-Trimethylethylbenzene (*ethylmesitylene*), synthesis of (TOHL), A., i, 17.  
 dibromo- (TÖHL), A., i, 17.  
 dinitro- (TÖHL), A., i, 17.
- 1 : 3 : 5 : 2-Trimethylethylbenzenesulphonic acid, salts of (TÖHL), A., i, 17.
- Trimethylethylene. See Amylene.
- aaa*<sub>1</sub>-Trimethylglutaramic acid (AUWERS and ZIEGLER), A., i, 643.
- aaa*<sub>1</sub>-Trimethylglutaric acid (AUWERS and ZIEGLER), A., i, 643.
- aaa*<sub>1</sub>-Trimethylglutaric anhydride, bromo- (AUWERS and ZIEGLER), A., i, 643.  
 action of bases on (AUWERS, SCHIFFER, and SINGHOF), A., i, 643.  
 action of aniline on (AUWERS, SCHIFFER, and SINGHOF), A., i, 643.
- $\alpha\beta$ -Trimethylglutaric acid (PERKIN and THORPE), P., 1896, 156; (AUWERS and ZIEGLER), A., i, 643.  
 ethylic salt (PERKIN and THORPE), P., 1896, 156.
- aa* $\beta$ -Trimethylglutaric acid,  $\beta$ -bromo-, ethylic salt, and action of alcoholic potassium cyanide on (PERKIN and THORPE), P., 1896, 156.
- Trimethylhæmatoxylin, acetyl derivatives of (HERZIG), A., i, 379.
- 2 : 4 : 6-Trimethylhexahydropyridine. See Copellidine.
- 1 : 2 : 5-Trimethylcyclohexane (ZELINSKY and REFORMATSKY), A., i, 210.  
 nitro-, labile form of (KONOWALOFF), A., i, 676.
- Trimethylcyclohexanone (*trimethyl-ketohexamethylene*) (ZELINSKY and REFORMATSKY), A., i, 130.  
 action of nascent hydrogen on (ZELINSKY and REFORMATSKY), A., i, 130.
- Trimethylhydroxylamine, hydriodide of (DUNSTAN and GOULDING), T., 839; P., 1896, 72.
- Trimethyl-3-hydroxytetrahydronaphthylammonium chloride, picrate, aurochloride, and platinochloride (BAMBERGER and LODTER), A., i, 100.
- 1' : 3' : 3'-Trimethyl-2'-indolinone and its platinochloride, aurochloride, mercurochloride (BRUNNER), A., i, 625.

- 1' : 3' : 3'-Trimethylindolium hydroxide and its hydrochloride, sulphate, mercurchloride, and platinochloride (BRUNNER), A., i, 625.
- di*bromo- (BRUNNER), A., i, 625.
- dinitro*- (BRUNNER), A., i, 625.
- Trimethyliodethylammonium iodide (GABRIEL and STELTZNER), A., i, 121.
- Trimethylketohexamethylene. See Trimethylcyclohexanone.
- 2 : 4 : 6-Trimethylmandelic acid (MEYER and SOHN), A., i, 434.
- 2 : 2 : 4-Trimethylpentane-3-ol-1-al. See Hydroxyoctoic aldehydes.
- 2 : 2 : 4-Trimethylpentane-1 : 3-diol. See Octyleneglycols.
- 2 : 2 : 4-Trimethylpentane-3-ol-1-ol. See Hydroxyoctoic acids.
- Trimethylphosphine, preparation of (HOFMANN LECTURE), T., 671.
- Trimethylpimelic acid, synthesis of (ZELINSKY and REFORMATSKY), A., i, 130.
- dicyano*-, ethylic salt (ZELINSKY and REFORMATSKY), A., i, 130.
- 2 : 2 : 6-Trimethylpiperidine, 4-amino-, and its salts and acetyl derivatives (HARRIES), A., i, 318.
- $\alpha\beta$ -Trimethylpropionic acid. See Hexoic acids.
- Trimethylpylammonium platinochloride, crystalline form of (HOFMANN LECTURE), T., 671.
- Trimethylisopropylammonium chloride, action of heat on (HOFMANN LECTURE), T., 670.
- Trimethylpyrazine and its salts (BRANDES and STOEHR), A., i, 576.
- 2 : 4 : 6-Trimethylpyridine. See Collidine.
- Trimethylpyrogallol, magnetic rotatory power, &c., of (PERKIN), T., 1064, 1127, 1189, 1241.
- Trimethylpyruvic acid (GLÜCKSMANN), A., i, 333.
- 1 : 3 : 2'-Trimethylquinoline, condensation of, with opianic acid (NENCKI), A., i, 256.
- Trimethylrosaniline methochloride (HOFMANN LECTURE), T., 625.
- $\beta$ -Trimethyluric acid (FISCHER and ACH), A., i, 12.
- $\beta$ -Trimaphthylallyltrisulphone (TROEGER and ARTMANN), A., i, 570.
- Trinitrides, decomposition of (PERATONER and ODDO), A., ii, 245.
- Trioxymethylene, use of, for disinfection (BROCHET), A., i, 345.
- Triphenylcarbinol, formation of, from ethylic oxalate and bromobenzene (FREY), A., i, 99.
- 2 : 4 : 5-Triphenyl-4 : 5-dihydroglyoxaline (FEIST and ARNSTEIN), A., i, 259.
- 2 : 3 : 5-Triphenyl-5 : 6-dihydropyrazine (FEIST and ARNSTEIN), A., i, 258.
- 3 : 4 : 6-Triphenyldihydropyridazine (SMITH), A., i, 322.
- Triphenylethanolone. See Diphenylhydroxyacetophenone.
- Triphenylethanone. See Diphenylacetophenone.
- Triphenylguanidine, discovery of (HOFMANN LECTURE), T., 686.
- action of cyanogen on (HOFMANN LECTURE), T., 715.
- Triphenylmelamine, preparation of (HOFMANN LECTURE), T., 716.
- Triphenylmethane, refraction equivalent of (ANDERLINI), A., ii, 229.
- magnetic rotatory power, &c., of (PERKIN), T., 1085, 1086, 1152, 1195, 1230, 1242.
- p*-nitro-*diamino*-, reduction of (PRUD'HOMME), A., i, 307.
- Triphenylmethane dyes, constitution of (VAUBEL), A., i, 242.
- Triphenylphosphine and its chloride (HOFMANN LECTURE), T., 683.
- 1 : 3 : 4-Triphenylpyrazole (SMITH and RANSOM), A., i, 322.
- 3 : 4 : 6-Triphenylpyridazine (SMITH), A., i, 322.
- Triphenylrosaniline, constitution of (HOFMANN LECTURE), T., 614.
- Triphenylrosanilinesulphonic acids, discovery of (HOFMANN LECTURE), T., 616.
- Triphenylstibine : its chloride and hydroxide (HOFMANN LECTURE), T., 683.
- Triphenylvinyl alcohol, action of hydroxylamine hydrochloride on (BILTZ), A., i, 690.
- Triphosphonium triiodide, preparation of (HOFMANN LECTURE), T., 680.
- Triphylite, optical properties of (PENFIELD and PRATT), A., ii, 184.
- Triperonal,  $\alpha$ -trithio- (WÖRNER), A., i, 226.
- $\beta$ -trithio- (WÖRNER), A., i, 226.
- Tripropylamine, partial oxidation of (DE HAAS), A., i, 122.
- Triresorcinol (HESSE), A., i, 153.
- hydrobromide (HESSE), A., i, 153.
- hydrochloride (HESSE), A., i, 152.
- diacetyl derivative of (HESSE), A., i, 153.
- Triresorcinol, bromo-, and its hydrobromide (HESSE), A., i, 153.
- tetrabromo*-, and its pentahydrobromide (HESSE), A., i, 153.
- heptabromo*- (HESSE), A., i, 153.

- Triticum*. See Agricultural chemistry.
- Tri-*m*-tolualdehyde,  $\alpha$ -trithio- (WÖRNER), A., i, 226.
- $\beta$ -trithio- (WÖRNER), A., i, 226.
- Tri-*p*-tolualdehyde,  $\alpha$ -trithio- (WÖRNER), A., i, 226.
- $\beta$ -trithio- (WÖRNER), A., i, 226.
- Tritoluenesulphonamide (MEYER), A., i, 684.
- Tri-*p*-tolylidibenzylidenetrimethylketone (KOSTANECKI and ROSSBACH), A., i, 688.
- Tritolylguanidine: its hydrochloride and nitrate (MARCKWALD), A., i, 30.
- Trivanillin, trithio- (WÖRNER), A., i, 226.
- Tropeine, acetyl, lactyl, succinyl, malyl, tartryl, and hippuryl derivatives of (MERCK), A., i, 65.
- physiological action of derivatives of (MERCK), A., i, 65.
- $\psi$ -Tropine, benzoyl derivative of, and its salts (WILLSTÄTTER), A., i, 452.
- Tropic acid, scopoleine of (MERCK), A., i, 65.
- Tropigenine and its  $\mu$ -benzoyl derivative (WILLSTÄTTER), A., i, 582.
- $\psi$ -Tropigenine, formation of (WILLSTÄTTER), A., i, 655, 709.
- salts and benzoyl derivative of (WILLSTÄTTER), A., i, 655, 709.
- Tropilene, oxidation of (CIAMICIAN and SILBER), A., i, 397.
- Tropine, constitution of (LADENBURG), A., i, 326.
- and derivatives, formulæ of (WILLSTÄTTER), A., i, 328.
- formation of  $\psi$ -tropine from (WILLSTÄTTER), A., i, 451.
- $\psi$ -Tropine, preparation of (WILLSTÄTTER), A., i, 451.
- oxidation of (WILLSTÄTTER), A., i, 451, 709.
- opianate. See Opianic acid,  $\psi$ -tropine, salt of.
- Tropinic acid, from dihydroxytropidine (WILLSTÄTTER), A., i, 65.
- constitution of (WILLSTÄTTER), A., i, 267.
- action of phosphorus and hydriodic acid on (CIAMICIAN and SILBER), A., i, 513.
- d*-Tropinic acid and its methylic salt, its methiodide, and other derivatives (WILLSTÄTTER), A., i, 265.
- propylic salt and its methiodide (WILLSTÄTTER), A., i, 267.
- i*-Tropinic acid: its derivatives and salts (WILLSTÄTTER), A., i, 265.
- methylic salt, and its methiodide and other derivatives (WILLSTÄTTER), A., i, 265.
- propinone, preparation of, and its salts and methiodide (WILLSTÄTTER), A., i, 327.
- analogy of, with granatone (WILLSTÄTTER), A., i, 328.
- action of bromine on (WILLSTÄTTER), A., i, 709.
- reduction of (WILLSTÄTTER), A., i, 451.
- cyanhydrin (WILLSTÄTTER), A., i, 582.
- hydrolysis of; formation of isomerides of cocaine (WILLSTÄTTER), A., i, 707.
- Propinone, tetrabromo-, formation, oxidation, and constitution of (WILLSTÄTTER), A., i, 709.
- Propinonemethylammonium hydroxide. preparation and decomposition of (WILLSTÄTTER), A., i, 327.
- Propinoneoxime and its derivatives (WILLSTÄTTER), A., i, 327.
- Propinonephenylhydrazone (WILLSTÄTTER), A., i, 327.
- Tropylscopoleine and salts (LUBOLDT), A., i, 396.
- Trypsin, solubility of, in alcohol (DASTRE), A., i, 398.
- Tuberin, a globulin from the potato, preparation and properties of (OSBORNE and CAMPBELL), A., i, 715.
- Tufa, calcareous, from Bungonia, N.S.W. (CURRAN), A., ii, 535.
- Tungsten, preparation of pure (MOISSAN), A., ii, 606.
- atomic weight of (SCHNEIDER), A., ii, 428.
- properties and reactions of (MOISSAN), A., ii, 607.
- Tungsten alloys of, with aluminium (MOISSAN), A., ii, 602.
- with iron (BENNEVILLE), A., ii, 174.
- Tungsten carbide (MOISSAN), A., ii, 607.
- oxyfluoride (PICCINI), A., ii, 178.
- potassium oxyfluorides (MARCHETTI), A., ii, 20.
- Tungstic acid, salts with rare earths (HITCHCOCK), A., ii, 526.
- Metatungstic acid, physical properties of (SOBOLEFF), A., ii, 478.
- Paratungstates of sodium, potassium, and ammonium (HALLOPEAU), A., ii, 652.
- Iodotungstic acids and their salts (CHRÉTIEN), A., ii, 652.
- Phosphododecatungstic acid, physical properties of (SOBOLEFF), A., ii, 477.
- Tungstozirconic. See Zirconotungstic.

- Tungsten : Tungstittartaric acid, salts of (HENDERSON and BARR), T., 1456: P., 1896, 169.
- Turacin, absorption spectrum of (GAMGEE), A., i, 714.
- Turacoporphyrin, absorption spectrum of (GAMGEE), A., i, 714.  
identity of, with hæmatoporphyrin (GAMGEE), A., i, 714.
- Turnerole, properties and formula of (JACKSON and WARREN), A, i, 387.
- Turpethic acid (KROMER), A., i, 386.
- Turpethin from *Ipomœa turpethum* (KROMER), A., i, 386.  
the soluble ferment found in dahlia, beetroot, &c. (BERTRAND), A, ii, 571.
- Tyrosin, oxidation of, by a soluble ferment, tyrosinase (BERTRAND), A., ii, 571.  
detection of (LANDSTEINER), A., ii, 284.
- U.**
- Ulex europæus*, occurrence of cytisine in (PLUGGE), A., ii, 61.
- "Ultramarine" from New Mexico (PACKARD), A., ii, 530.
- Umbelliferone from Sagapen resin (HORNADDEL), A., i, 58.
- Undecolic acid. See under Hendecenoic acid.
- iso*-Undecylamine. See *iso*-Hendecylamine.
- Undecylenic acid. See Hendecenoic acids.
- Unsaturated compounds, classification of (MICHAEL), A., i, 133.
- Uracyl-2-hydrosulphide, 3-amino-, and its ammonia compound and acetyl derivative (WEIDEL and NIEMIŁOWSKI), A., i, 105.
- m*-Uramidobenzoic acid and its methylic salt (ZINCKE and HELMERT), A., i, 548.  
4-amino-, and its salts (ZINCKE and HELMERT), A., i, 548.  
4-nitro-, and its salts (ZINCKE and HELMERT), A., i, 548.
- p*-Uramidobenzoic acid and its salts (ZINCKE and HELMERT), A., i, 549.  
3-amino-, and its salts (ZINCKE and HELMERT), A., i, 549.  
3-nitro-, and its salts (ZINCKE and HELMERT), A., i, 549.  
*d*-nitro-, and its ammonium salt (ZINCKE and HELMERT), A., i, 549.
- 3 : 4-Uramidobenzoyl-1-carboxylic acid. See Diketotetrahydroquinazoline-2-carboxylic acid.
- m*-Uramidodibenzoic acid and its methylic salt (ZINCKE and HELMERT), A., i, 548.
- p*-Uramidodibenzoic acid and its salts (ZINCKE and HELMERT), A., i, 549.
- Uramil, thio- (FISCHER), A., i, 141.  
action of hydrochloric and nitric acids on (FISCHER), A., i, 141.  
action of potassium cyanate on (FISCHER), A., i, 142.  
metallic salts of (FISCHER), A., i, 141.  
methyl derivative, action of potassium cyanate on (FISCHER), A., i, 143.
- Uraninite, spectrum of gas from (LOCKYER), A., ii, 596.
- Uranium, preparation and properties of (MOISSAN), A., ii, 525.  
temperature of sparks detached by steel from (CHESNEAU), A., ii, 407.
- Uranium alloys of, with aluminium (MOISSAN), A., ii, 602.
- Uranium salts, action of, on organic acids in presence of light (FAY), A., i, 465.  
thermochemistry of (ALOY), A., ii, 590.  
carbide (MOISSAN), A., ii, 364.  
oxynitride (SMITH and MATTHEWS), A., ii, 177.  
niobate (LARSSON), A., ii, 564.  
dioxide (SMITH and MATTHEWS), A., ii, 177.  
potassium sulphate, phosphorescent radiations from (BECQUEREL), A., ii, 406.
- Uranyl cæsium chloride (WELLS and BOLTWOOD), A., ii, 108.  
molybdate (HITCHCOCK), A., ii, 526.  
tungstate (HITCHCOCK), A., ii, 526.
- Urea in animal organs (SCHÖNDORFF), A., ii, 318.  
distribution of, between corpuscles and plasma of blood (SCHÖNDORFF), A., ii, 375.  
formation of, by ferment action (RICHT), A., ii, 119.  
formation of, in the fermentation of uric acid (GÉRARD), A., ii, 668.  
products formed in the fermentation of (ADENEY), A., ii, 326.  
action of polysulphides on (AUF-SCHLÄGER), A., ii, 574.
- Urea, estimation of, by the hypobromite process (ALLEN), P., 1896, 31.

- Urea, estimation of, in blood and tissues (KAUFMANN), A., ii, 130; (SCHÖNDORFF), A., ii, 131.
- Urea. See also Carbamide.
- Urethane, heat of solution of, in water, methylic, ethylic, and propylic alcohols, chloroform, and toluene (SPEYERS), A., ii, 411.
- decomposition of, with sodium hypochlorite (CONINCK), A., i, 364.
- action of phosphorus trichloride on (LACHMANN), A., i, 601.
- benzoyl derivative of (VON PECHMANN and VANINO), A., i, 33.
- Urethane, nitro- (THIELE and LACHMANN), A., i, 208.
- nitroso- (THIELE and LACHMANN), A., i, 208.
- Urethaneacetic acid and its ethylic salt (HANTZSCH and METCALF), A., i, 521.
- nitro- (HANTZSCH and METCALF), A., i, 521.
- nitroso-, ethylic salt (HANTZSCH and METCALF), A., i, 521.
- Urethanes (CURTIUS), A., i, 340.
- Uric acid in wing-scales of *Pieridæ* (HOPKINS), A., ii, 198.
- new synthesis of (FISCHER and ACH), A., i, 12.
- solubilities of (SMALE), A., ii, 490.
- action of ammonium sulphide on (FISCHER), A., i, 142.
- fermentation of, by micro-organisms (GÉBARD), A., ii, 668.
- influence of food containing nuclein on the secretion of (UMBER), A., ii, 666.
- nuclein as a source of, in the body (WEINTRAUD), A., ii, 488.
- source of, in urine (CAMERER), A., ii, 379.
- sources of, in urine and fæces (WEINTRAUD), A., ii, 490.
- action and excretion of, in rabbits and dogs (EBSTEIN and NICOLAÏER), A., ii, 379.
- urates, precipitation of, within and without the body (MORDHORST), A., ii, 491.
- Uric acid, separation of, from alloxuric bases (KRÜGER), A., ii, 281.
- estimation of, in urine (KRÜGER), A., ii, 281; (RITTER), A., ii, 343.
- estimation of, by Fehling's solution (RIEGLER), A., ii, 227.
- ψ-Uric acid, β-thio- (FISCHER), A., i, 142.
- action of fused oxalic acid on (FISCHER), A., i, 142.
- Urine, causes of secretion of (TAMMANN), A., ii, 618.
- Urine, influence of atropine on the secretion of (WALTI), A., ii, 666.
- influence of the administration of acids on (DUNLOP), A., ii, 484.
- excretion of calcium salts in the (REY), A., ii, 489.
- excretion of iron in the (TIRMANN), A., ii, 487.
- of the insane, epiguanine a new base found in (KRÜGER), A., i, 62.
- extraction of urobilin from (GARROD and HOPKINS), A., i, 712.
- presence of acetone in (ABRAM), A., ii, 264.
- presence of albumose in, during fever (KREHL and MATTHES), A., ii, 667.
- presence of ammonia in, during fevers (RUMPF; HALLERVORDEN), A., ii, 379.
- presence and amount of ammonia in, during disease (RUMPF), A., ii, 618.
- presence and amount of alloxuric bases in, during nephritis (ZÜLZER), A., ii, 667.
- presence of alloxuric substances in, during disease (BAGINSKY and SOMMERFELD), A., ii, 491.
- presence or absence in, of indican and indoxylglycuronic acid (DAIBER), A., ii, 491.
- presence of lactose, isomaltose, and dextrose in (LEMAIRE), A., ii, 490.
- presence of pentose in (SALKOWSKI), A., ii, 490.
- presence and amount of oxalic acid in (DUNLOP), A., ii, 263.
- absence of sugar in normal (JOHNSON), A., ii, 199.
- precipitation of creatinine from, by lead acetate (COLLS), A., ii, 666.
- proteids of (MÖRNER), A., ii, 120.
- separation of pigments of, by means of phenol (KRAMM), A., ii, 666.
- solubility of uric acid in (SMALE), A., ii, 490.
- sources of acetone in (WEINTRAUD), A., ii, 490.
- sources of hæmatoporphyrin in (STOKVIS), A., ii, 537.
- source of oxalic acid in (DUNLOP), A., ii, 263.
- source of phosphoric acid in (CAMERER), A., ii, 379; (WEINTRAUD), A., ii, 488.
- sources of uric acid in (CAMERER), A., ii, 379; (WEINTRAUD), A., ii, 488, 490; (UMBER), A., ii, 666.
- sources of xanthine bases in (CAMERER), A., ii, 379.
- Urine, detection of albumin in (JOLLE), A., ii, 344.

- Urine, detection of creatinine in (DE CONINCK), A., ii, 132.  
 detection of mercury in (JOLLES), A., ii, 77.  
 detection of pentoses in (TOLLENS), A., ii, 504.  
 Ehrlich's diazo-reaction in (HEWLETT), A., ii, 284.  
 estimation of acetone in (GEELMUYDEN), A., ii, 679.  
 estimation of acidity of (LÉPINOIS), A., ii, 397.  
 estimation of chlorides in (DENIGÈS), A., ii, 336.  
 estimation of creatinine in (KOLISCH), A., ii, 283.  
 estimation of *d*-glucose in (LOHNSTEIN), A., ii, 128.  
 estimation of small quantities of glucose in (BUCHNER), A., ii, 225.  
 estimation and detection of mercury in (JOLLES), A., ii, 77.  
 estimation of urea in, by the hypobromite process (ALLEN), P., 1896, 31.  
 estimation of uric acid in (KRUGER), A., ii, 281; (RITTER), A., ii, 343.  
 estimation of xantho-uric derivatives in (DENIGÈS), A., ii, 387.  
 Urino-mucoid, separation of, from urine (MORNER), A., ii, 120.  
 Urobilin, nature and sources of (TOLLES), A., ii, 51.  
 chemical and optical properties of (GARROD and HOPKINS), A., i, 713.  
 absorption spectrum of (GARROD and HOPKINS), A., i, 713; (GAMGEE), A., i, 714.  
 extraction of, from urine (GARROD and HOPKINS), A., i, 712.  
*Urtica urens* and *U. dioica*, constituents of (GIUSTINIANI), A., ii, 495.  
 Usnic acid in lichens, occurrence of (ZOFF), A., i, 104.

## V.

- Vacuum tubes, method of filling, with gases (YOUNG and DARLING), A., ii, 3.  
 Valency of gases, connection between the dielectric constant and (LANG), A., ii, 144.  
 VALERALDEHYDES:—  
*iso*-Valeraldehyde, action of alcoholic potash on (KOHN), A., i, 461.  
 condensation products from (KOHN), A., i, 10.

- VALERALDEHYDES:—  
*iso*-Valeraldehyde, condensation of, with  $\beta$ -hydroxy- $\alpha$ -naphthaquinone (HOOKER), T., 1356.  
 Methylenehydraldehyde (IPATIEFF), A., i, 402.  
 Valeranilide (SPIZZICHINO and CONTI), A., i, 432.  
 Valerian, oil of, hydrolysis of (OLIVIERO), A., i, 492.  
*Valeriana officinalis* (OLIVIERO), A., i, 492.  
 VALERIC ACIDS:—  
 Valeric acid, formation of, by the action of light on amylc alcohol (RICHARDSON and FORTEY), T., 1351; P., 1896, 165.  
 melting and solidifying points of (MASSOL), A., i, 408.  
 absorption by silk of dilute (WALKER and APPEYARD), T., 1346; P., 1896, 147.  
 ethylic and amylc salts, molecular volume of, in organic solvents (NICOL), T., 113; P., 1895, 237.  
 Valeric acid,  $\alpha$ -bromo-, ethylic salt, action of alcoholic potash on (PERKIN and GOODWIN), T., 1470.  
 action of quinoline on (PERKIN and GOODWIN), T., 1470.  
*iso*-Valeric acid (*iso*-propylacetic acid) (HJELT), A., i, 598.  
 melting and solidifying points of (MASSOL), A., i, 408.  
*iso*-Valeric acid, crotonylic salt (CHARON), A., i, 662.  
 diisobutylacetylenic salt, density of (ANDERLINI), A., i, 203.  
*iso*-Valeric acid,  $\alpha$ -bromo-, ethylic salt, action of finely divided silver on (AUWERS and SCHLOSSER), A., i, 639.  
 Methylenehydraldehyde (*iso*-methylbutyric acid; *Hydrotiglic acid*) (FICHTER and HERBRAND), A., i, 463; (CIAMICIAN and SILBER), A., i, 596.  
 specific rotatory power of (GUYE and ROSSI), A., ii, 85.  
 separation into optically active components (SCHUTZ and MARCKWALD), A., i, 203.  
 salts of, specific rotatory power of solutions of the (GUYE and ROSSI), A., ii, 85.  
 Methylenehydraldehyde,  $\gamma$ -bromo- (BENTLEY, HAWORTH, and PERKIN), T., 174.  
 ethylic salt (BENTLEY, HAWORTH, and PERKIN), T., 174; P., 1896, 36.

## VALERIC ACIDS:—

Methylethylacetic acid,  $\gamma$ -bromo-ethylic salt, action of ethylic sodioisopropylmalonate on (BENTLEY, HAWORTH, and PERKIN), T., 162.

$\gamma$ -chloro-, anilide of (BENTLEY, HAWORTH, and PERKIN), T., 175; P., 1896, 37.

Trimethylacetic acid, methylamides, action of nitric acid on (FRANCHIMONT), A., i, 602.

*iso*-Valeric anhydride, refraction equivalent of (ANDERLINI), A., ii, 229.

## VALERIC CHLORIDE:—

Methylethylacetic chloride,  $\gamma$ -chloro- (BENTLEY, HAWORTH, and PERKIN), T., 175; P., 1896, 37.

*iso*-Valeroin. See Butyl  $\alpha$ -hydroxy-amyl ketone.

## VALEROLACTONES:—

Valerolactone (SPENZER), A., i, 128.

$\alpha$ -Methylbutyrolactone (BENTLEY, HAWORTH, and PERKIN), T., 173; P., 1896, 36.

and the action of hydriodic acid on (FICHTER and HERBRAND), A., i, 463.

action of hydrobromic acid on (BENTLEY, HAWORTH, and PERKIN), T., 174; P., 1896, 36.

action of phosphorus pentachloride on (BENTLEY, HAWORTH, and PERKIN), T., 174; P., 1896, 37.

$\gamma$ -Valerolactone, refraction equivalent of (ANDERLINI), A., ii, 229.

Valeronitrile, preparation of (HOFMANN LECTURE), T., 696.

*iso*-Valerophenone- $\alpha$ -carboxylic acid (BROMBERG), A., i, 580.

*iso*-Valeroylmalic acid, rotatory power of the methylic, ethylic, propylic, and isobutylic salts of (WALDEN), A., ii, 136.

Valeroylmandelic acid, rotatory power of the ethylic salt of (WALDEN), A., ii, 138.

*iso*-Valerylideneacetoacetic acid, ethylic salt of (KNOEVENAGEL), A., i, 210.

*iso*-Valerylidenebisacetonedicarboxylic acid, ethylic salt of (KNOEVENAGEL), A., i, 212.

*iso*-Valerylphenylsemicarbazide (WIDMAN), A., i, 630.

Valve, convenient form of Bunsen (KREIDER), A., ii, 161.

Vanadiferous coal from Peru (TOBRICO Y MECA), A., ii, 252.

Vanadium, preparation of (MOISSAN), A., ii, 608.

Vanadium-alloys with iron, copper, and aluminium (MOISSAN), A., ii, 609.

Vanadium carbide (MOISSAN), A., ii, 608.

ammonium alum (PICCINI), A., ii, 304.

cæsium alum (PICCINI), A., ii, 305.

rubidium alum (PICCINI), A., ii, 305.

Vanillic acid, synthesis of (FAJANS), A., i, 369.

Vanillin, synthesis of (FAJANS), A., i, 368.

Vanillinacetic acid (GASSMANN), A., i, 425.

Vaso-motor nerves, action of, on metabolism (FANGL), A., ii, 43.

Vapour density. See Density.

Vapour pressure. See Heat.

Vapour pressure of hydrated salts. See Heat, dissociation pressure.

Vegetable matter, dead, decomposition of (BREAL), A., ii, 670.

Velocity of a reversible reaction of the first order (KÜSTER), A., ii, 158.

Velocity of change of alkyl ammonium cyanates into the corresponding carbamides (WALKER and APPLEYARD), T., 193; P., 1896, 12.

of *syn*- into *anti*-aldoximes (LEY), A., ii, 243.

of anissynaldoxime acetate into the nitrile and acetic acid (LEY), A., ii, 243.

of benzsynaldoxime acetate into the nitrile and acetic acid (LEY), A., ii, 243.

of *p*-bromobenzsynaldoxime acetate into the nitrile and acetic acid (LEY), A., ii, 243.

of *p*-chlorobenzsynaldoxime acetate into the nitrile and acetic acid (LEY), A., ii, 243.

of diazoamide into amidoazo-compounds (GOLDSCHMIDT and REINDERS), A., ii, 515, 556.

of *p*-iodobenzsynaldoxime acetate into the nitrile and acetic acid (LEY), A., ii, 243.

of thiophensynaldoxime acetate into the nitrile and acetic acid (LEY), A., ii, 243.

produced by enzymes (TAMMANN), A., ii, 244.

Velocity of decomposition of acids containing sulphur and nitrogen (WAGNER), A., ii, 470.

of allylsuccinimide by hydrochloric acid (MIOLATI), A., ii, 242.

of benzylsuccinimide by hydrochloric acid (MIOLATI), A., ii, 242.

of ethylsuccinimide by hydrochloric acid (MIOLATI), A., ii, 242.

of glutarimide by hydrochloric acid (MIOLATI), A., ii, 242.

- Velocity of decomposition of methylsuccinimide by hydrochloric acid (MIOLATI), A., ii, 242.  
 of phenylsuccinimide by hydrochloric acid (MIOLATI), A., ii, 242.  
 of potassium hypoiodite (NOYES and SCOTT), A., ii, 158.  
 of propylsuccinimide by hydrochloric acid (MIOLATI), A., ii, 242.  
 of pyrotartarimide by hydrochloric acid (MIOLATI), A., ii, 242.  
 of succinimide by hydrochloric acid (MIOLATI), A., ii, 242.  
 of *p*-tolylsuccinimide by hydrochloric acid (MIOLATI), A., ii, 242.
- Velocity of etherification, acceleration of the, by hydrochloric acid (TAFEL), A., ii, 470.  
 of chloracetic acids (LICHTY), A., ii, 557.  
 in presence of acids (GOLDSCHMIDT), A., ii, 638; (PETERSEN), A., ii, 638.
- Velocity of hydrolysis of methylic and ethylic acetates in alcoholic solution (GENNARI), A., ii, 413.  
 of salicin by acids (NOYES and HALL), A., ii, 159.  
 of sugar and ethereal salts by acids under pressure (ROTHMUND), A., ii, 594.
- Velocity of inversion of sugar by salts (LONO), A., ii, 414.
- Velocity of lactone formation in acids of the sugar group (HJELT), A., i, 596.
- Velocity of oxidation of hydriodic acid, mathematical theory of the (WARDER), A., ii, 297.
- Velocity of reaction in gases (STORCH), A., ii, 296; (COHEN), A., ii, 593.  
 of ethylic iodide and silver nitrate dissolved in methylic and in ethylic alcohols (CHIMINELLO), A., ii, 354.  
 between ferric and stannous chlorides (NOYES and SCOTT), A., ii, 158.  
 between hydriodic and bromic acids (NOYES and SCOTT), A., ii, 158.  
 of hydrogen peroxide and hydriodic acid (NOYES and SCOTT), A., ii, 158; (HARCOURT and ESSON), A., ii, 238.  
 of potassium iodide and chlorate in acid solution (SCHLUNDT), A., ii, 297.
- Veratraldehyde, preparation of (BOUVEAULT), A., i, 649.  
 hydrazone (BOUVEAULT), A., i, 650.
- Veratranilide (BRÜGGEMANN), A., i, 356.
- Veratric acid. See Dimethylprotocatechuic acid.
- Veratrine, action of, on the embryonic heart (PICKERING), A., ii, 46.
- Veratrole, benzoyl derivative of, and its phenylhydrazone (BRÜGGEMANN), A., i, 356.  
 bromo- (MOUREU), A., i, 426.  
 tetrabromo- (BRÜGGEMANN), A., i, 356.  
 tetrachloro- (BRÜGGEMANN), A., i, 356.  
 diiodo- (BRÜGGEMANN), A., i, 356.  
 dinitro- (BRÜGGEMANN), A., i, 356.  
 thioanilide (BRÜGGEMANN), A., i, 356.
- Veratronic nitrile (MOUREU), A., i, 426.
- Veratroylcarboxylic acid, and its ethylic salt (BOUVEAULT), A., i, 616.
- Veratroylgyloxylic acid hydrazone (BOUVEAULT), A., i, 650.
- Veratrylamine and its platinochloride, and benzoyl derivative (MOUREU), A., i, 426.
- Vermiculite from Styria (CANAVAL), A., ii, 483.
- Vernix caseosa, composition of (RUPPEL), A., ii, 199.
- Vesuvian. See Idocrase.
- Vetch, proteids of the (OSBORNE and CAMPBELL), A., i, 715.
- Vetches. See Agricultural Chemistry (Appendix).
- Vibrio Metschnikovii*, inversion of cane-sugar by (FERMI and MONTESANO), A., ii, 493.
- Vicia faba*, germination of (PRIANISCHNIKOFF), A., ii, 380.  
 optimum temperature for respiration of (ZIEGENBEIN), A., ii, 265  
*sativa*, nitrogenous constituents of (SCHULZE), A., ii, 208.
- Vicin is a glucoside not an alkaloid (RITTHAUSEN), A., i, 696.
- Vine, red dye of leaves of (WEIGERT), A., i, 388.
- Vinegar, estimation of chlorides in (DENIGÈS), A., ii, 386.
- Vinylamine, preparation of (GABRIEL and STELZNER), A., i, 121.  
 action of boiling water on (GABRIEL and STELZNER), A., i, 121.  
 action of carbon bisulphide on (GABRIEL and STELZNER), A., i, 121.  
 oxalate (GABRIEL and STELZNER), A., i, 121.
- Vinyldiacetonaminoxime (HARRIES), A., i, 318.
- Vinyl bromide (BENTLEY, HAWORTH, and PERKIN), T., 165; (HAWORTH and PERKIN), T., 175.
- Vinylpicolinic acid,  $\beta$ -dichloroxy-, lactone of (ZINCKE and WINZHEIMER), A., i, 500.



- Vinylcyclopropane and its oxidation (GUSTAVSON), A., i, 669.  
 $\alpha\beta$ -dibromo-(exo) (GUSTAVSON), A., i, 669.
- Vinylcyclopropane glycol (GUSTAVSON), A., i, 669.
- Vinylpyridinecarboxylic acid, *dichloro*-(ZINCKE and WIEDERHOLD), A., i, 502.  
*trichloro*-(ZINCKE and WIEDERHOLD), A., i, 502.
- Vinyltrimethylene. See Vinylcyclopropane.
- Violaniline, discovery of (HOFMANN LECTURE), T., 610.
- Violuric acid, electrolytic dissociation and colour of (DONNAN), A., ii, 405.
- Viscosity of aqueous solutions of sodium sulphate (D'ARCY), T., 999; P., 1896, 104.  
 of argon and helium (RAYLEIGH), A., ii, 539.  
 of solutions of the salts of the polythionic acids (HERTLEIN), A., ii, 353.
- Vitellin, non-occurrence of, in the almond (OSBORNE and CAMPBELL), A., i, 716.
- Vitis pentaphylla*, occurrence of galactan in (YOSHIMURA), A., ii, 60.  
*vinifera*, constituents of sap of (HÉBERT), A., ii, 495.  
 and *labrusca*, formation of proteids and carbohydrates in (SAPOSCHNIKOFF), A., ii, 537.
- Volemitol, preparation and properties of (BOURQUELOT), A., i, 273.  
 action of anhydrous sodium acetate and acetic anhydride on (BOURQUELOT), A., i, 273  
 acetal compounds of (BOURQUELOT), A., i, 273.
- Volgerite from Broken Hill, N.S.W. (SMITH), A., ii, 30.
- Voltameter, iodine-, for small currents (HERROUN), A., ii, 7.
- Volume changes during the formation of dilute solutions (JONES), P., 1895, 179.
- Volume, critical. See Critical volume.
- Volume of ethylic alcohol vapour, connection between temperature, pressure and (BATELLI), A., ii, 150.
- Volume of solids, simple apparatus for measuring the (GUGLIELMO), A., ii, 244.
- Volume of solutions, adiabatic changes of the (ROGÓYSKI and TAMMANN), A., ii, 513.  
 influence of pressure on the (TAMMANN), A., ii, 13.
- Volume of sulphates of potassium, rubidium, and caesium in combination with other sulphates (TUTTON), T., 497; P., 1896, 71.
- Volumes, molecular and atomic solution (TRAUBE), A., ii, 152.
- Volumes, molecular, determination of molecular weight by means of (TRAUBE), A., ii, 411.  
 in dilute solutions (KOHLEAUSCH), A., ii, 89.  
 of gases, L. Meyer's investigations on (BEDSON), T., 1423; P., 1896, 119.  
 of solids and liquids, extension of the laws of Avagadro and Gay Lussac to the (TRAUBE), A., ii, 235.  
 of the double sulphates of potassium, rubidium, and caesium (TUTTON), T., 457; P., 1896, 68.  
 of the salts of the polythionic acids (HERTLEIN), A., ii, 353.  
 of organic compounds (TRAUBE), A., ii, 354.  
 of hydrocarbons (TRAUBE), A., ii, 153.  
 of ethylic and amylic benzoates in organic solvents (NICOL), T., 143; P., 1895, 237.  
 of ethylic butyrate in organic solvents (NICOL), T., 143; P., 1895, 237.  
 of ethylic and amylic formates in organic solvents (NICOL), T., 143; P., 1895, 237.  
 of ethylic malonate in organic solvents (NICOL), T., 143; P., 1895, 237.  
 of ethylic oxalate in organic solvents (NICOL), T., 143; P., 1895, 237.  
 of ethylic salicylate in organic solvents (NICOL), T., 143; P., 1895, 237.  
 of ethylic succinate in organic solvents (NICOL), T., 143; P., 1895, 237.  
 of ethylic and amylic valerates in organic solvents (NICOL), T., 143; P., 1895, 237.  
 of methylic, butylic, and amylic acetates in organic solvents (NICOL), T., 143; P., 1895, 237.
- Volumes, molecular solution, determination of molecular weights by means of (TRAUBE), A., ii, 153.  
 of organic compounds (TRAUBE), A., ii, 354.
- Vortex atoms (FITZGERALD), T., 889; P., 1896, 25.

## W.

- Wallflower, yellow, colouring matters of the (PEKIN and HUMMEL), T., 1566; P., 1896, 185.
- Walnut, proteids of the (OSBORNE and CAMPELL), A., i, 716.
- Water, constitution of (BRÜHL), A., ii, 163.  
 composition of, by volume (THOMSEN), A., ii, 471.  
 vapour, apparatus for demonstrating the volumetric composition of (FREER), A., ii, 558.  
 rate of formation of, from electrolytic gas (COHEN), A., ii, 593.  
 electrolysis of (SOKOLOFF), A., ii, 510.  
 influence of temperature on the magnetic rotatory power of (PERKIN), T., 1060; P., 1896, 122.  
 electrolytic dissociation of, in the pure state and mixed with alcohol (LÖWENHERZ), A., ii, 587.  
 specific heat of, at different temperatures (DIETERICI), A., ii, 232.  
 heat of evaporation of (BECKMANN, FUCHS, and GERNHARDT), A., ii, 237.  
 influence of, on the combination of carbonic oxide and oxygen (DIXON), T., 776; P., 1896, 55.  
 of crystallisation in organic salts (SALZER), A., ii, 415.  
 and saline solutions (BRAUNS), A., ii, 111.
- Water of infiltration, losses of nitrogen in (SCHLÖESING), A., ii, 69.
- Water, mineral, argon in gases from (KELLAS and RAMSAY), A., ii, 655.  
 occurrence of argon and helium in (KAYSER), A., ii, 19; (BOUCHARD), A., ii, 117.  
 fluorine in (CASARES), A., ii, 42.  
 variation in composition of, at different periods (FRESENIUS), A., ii, 435.  
 enclosed in gypsum from Sicily (SJÖGREN), A., ii, 110.  
 from Albano, gases of (NASINI and ANDERLINI), A., ii, 366.  
 from Austria (JOHN and EICHLEITER), A., ii, 252.  
 from Bavaria (SCHWAGER and GÜMBEL), A., ii, 431.  
 from Bungonia, N.S.W. (CUBBAN), A., ii, 534.  
 from Canada (HOFMANN), A., ii, 191, 259.  
 bituminous, containing ammonia, from Clarmont (PARMENTIER), A., ii, 195.
- Water, mineral, hot springs of *Ædipos* and *Gialtra*, Greece (DAMBERGIS), A., ii, 535.  
 from Galicia, Spain (CASARES), A., ii, 42.  
 from Ischl, Upper Austria (DIETRICH), A., ii, 435.  
 from Landeck, L. Meyer's investigation of (BEDSON), T., 1413.  
 from Lake Corangamite, Victoria (CRAIG and WILSMORE), A., ii, 194.  
 from Liebwert, Bohemia (HIBSCH), A., ii, 534.  
 of the Knaresborough dropping well (BURRELL), T., 536; P., 1896, 73.  
 from Nashville, Illinois (STEIGER), A., ii, 194.  
 from Nassau (FRESENIUS), A., ii, 435.  
 from the Victoria spring, Nassau (FRESENIUS), A., ii, 315.  
 from Óvári, Hungary (NEUMANN), A., ii, 615.  
 from near Rome (FELICIANI), A., ii, 615.  
 from the Soap Lake, Washington (STEIGER), A., ii, 194.  
 from Styria (REIBENSCHUH), A., ii, 435.  
 from Taos, New Mexico (HILLEBRAND), A., ii, 194.  
 from the Transvaal (COHEN), A., ii, 436.  
 sulphuretted, argon and helium in (TROOST and OUVARD; BOUCHARD), A., ii, 298.  
 natural, occurrence of argon and helium in (KAYSER), A., ii, 19; (MOUREU; TROOST and OUVARD; BOUCHARD), A., ii, 298.  
 colouring matter of, source, composition, and estimation of (RICHARDS and ELLMS), A., ii, 340.  
 and polluted, fermentation changes in (ADENEY), A., ii, 323.  
 occurrence of iodine in (LECCO), A., ii, 579.  
 from Persia, examination of (NATTERER), A., ii, 68.  
 rain, chlorine in (PASSERINI), A., ii, 69.  
 of the Kansas River and its tributaries (BAILEY and FRANKLIN), A., ii, 615.  
 of the Seine, quantity of nitrates in (SCHLÖESING), A., ii, 496.  
 of the Pacific (CHABRIÉ), A., ii, 117.  
 potable, nitrates in (SCHLÖESING), A., ii, 541.

**Water**, apparatus for estimating the absorbent power of the soil for (BEESON), A., ii, 496.  
 examination of, microscopically (DIBDIN), A., ii, 341.  
 detection of lead and copper in (EGELING), A., ii, 549.  
 estimation of, in silicates (JANNASCH and WEINGARTEN), A., ii, 272.  
 estimation of, in superphosphates (DE KONINGH), A., ii, 541.  
 estimation of the colour of (HAZEN), A., ii, 548.  
 estimation of carbonic anhydride in (MEILLÈRE), A., ii, 391.  
 estimation of small quantities of lead in (ANTONY and BENELLI), A., ii, 549.  
 estimation of nitrites in (GILL and RICHARDSON), A., ii, 340.  
 estimation of dissolved oxygen in (ROMIJN), A., ii, 579.  
**Water-gas**, explosive mixtures of air and (CLOWES), P., 1895, 201.  
**Wax** :—  
 Beeswax, cerotic and melissic acids from (MARIE), A., i, 347.  
 estimation of wax substitute in (BUCHNER), A., ii, 486.  
**Weighings**, reduction of, to a vacuum (SALOMON), A., ii, 640.  
**Weld**, luteolin, the colouring matter of (PERKIN), T., 206; P., 1896, 37.  
**Wernerite**. See Scapolite.  
**Whale-meal**, feeding experiments with (SEBELIEN), A., ii, 197.  
**Whale oil**, analysis of (SCHWEITZER and LUNGWITZ), A., ii, 399.  
**Wheat**, effect of chemical substances on the germination of seeds of (SIGMUND), A., ii, 441.  
**Wheat**. See also Agricultural Chemistry (Appendix).  
**Wheat-meal**, proteids from (KJELDAHL), A., i, 583.  
**Wild marsh rosemary**, oil from (HJELT), A., i, 248.  
**Willyamite** from Broken Hill, N.S.W. (PITTMAN), A., ii, 31.  
**Wiluite**. See Idocrase.  
**Wine**, cause of the bouquet of (MÜLLER), A., ii, 201.  
 effect of alum in (SESTINI), A., ii, 342.  
 sweet, relative proportions of glucose, &c., in (KÖNIG), A., ii, 79.  
 rhubarb, amount of acid in (OTTO), A., ii, 539.  
 cultivation of pure wine yeast and its use in the manufacture of (MÜLLER), A., ii, 201.  
 mannitol fermentation in Sicilian (BASILE), A., ii, 121.

**Wine**, detection of boric acid in (VILLIERS and FAYOLLE), A., ii, 75.  
 detection of foreign colouring matters in (BELAE), A., ii, 630.  
 detection of fluorine in (NIVIÈRE and HUBERT), A., ii, 497.  
 estimation of volatile acids in (JAY), A., ii, 397.  
 estimation of alcohol and total solids in, by an optical method (RIEGLER), A., ii, 224.  
 estimation of alum in (GEORGES), A., ii, 451.  
 estimation of chlorides in (DENIGÈS), A., ii, 386.  
 estimation of glycerol in (LABORDE), A., ii, 77; (PARTHEIL), A., ii, 78.  
 estimation of tannin in (MANCEAU), A., ii, 282.  
 estimation of tartar and tartaric acid in (HAAS), A., ii, 583.  
**Witherite** from Przibram (HOFMANN), A., ii, 610.  
**Wollastonite** in slags (HEBERDEY), A., ii, 371.  
**Wood**, products of the distillation of (BARILLOT), A., i, 462.  
**Wood-pulp**, detection of, in paper (WOLESKY), A., ii, 505.  
**Wool-fat**, composition of (DARMSTAEDTER and LIFSCHÜTZ), A., i, 346, 522.  
 hydrolysis of (DARMSTAEDTER and LIFSCHÜTZ), A., i, 198.  
 analysis of (ULZER and SEIDEL), A., ii, 628.  
**Woollen fibre**, action of alcoholic hydrogen chloride and sodium nitrite on (CURTIUS), A., i, 337.  
**Wort**. See Beer wort.  
**Wurtzite** from Mies, Bohemia (BECKE), A., ii, 108.

## X.

**X rays**. See Light.

**Xanthine** in young plants of *Vicia sativa* (SCHULZE), A., ii, 208.  
 bromo-, action of potash on (FISCHER), A., i, 13.  
 Heteroxanthine, constitution of (KRÜGER and SALOMON), A., i, 191, 200.  
 physiological action of (KRÜGER and SALOMON), A., ii, 200.  
**Xanthine-bases**, sources of, in fæces (WEINTRAUD), A., ii, 490.  
 sources of, in urine (CAMERER), A., ii, 379.  
**Xanthone**, preparation of (JEITELES), A., i, 435.

- Xanthone, action of acetic acid and zinc dust on (GURGENJANZ and KOSTANECKI), A., i, 52.
- Xanthone group of yellow colouring matters (PERKIN), T., 1440; P., 1896, 167.
- Xantho-uric derivatives, estimation of, in urine (DENIGÈS), A., ii, 387.
- Xenotime from North Carolina (EAKINS), A., ii, 39.
- from Norway (ERDMANN), A., ii, 570.
- Xenylamine. See Diphenyl, *p*-amino-.
- Xiphonite from Etna (PLATANIA), A., ii, 259.
- Xylan (*wood gum*), action of acetic chloride on (BADER), A., i, 335.
- acetyl and benzoyl derivatives of (BADER), A., i, 335.
- nitrites (BADER), A., i, 335.
- o*-Xylene, magnetic rotatory powers, &c., of (PERKIN), T., 1130, 1159, 1192, 1193, 1229, 1241.
- compound obtained by the action of ozone on (RENARD), A., i, 147.
- m*-Xylene, magnetic rotatory powers, &c., of (PERKIN), T., 1130, 1159, 1192, 1193, 1229, 1241.
- heat of evaporation of (MARSHALL and RAMSAY), A., ii, 349.
- m*-Xylene, 4 : 5-dichloro- (KLAGES), A., i, 291.
- 4-chloro-5-nitro- (KLAGES), A., i, 291.
- 4-chloro-2 : 5-dinitro- (KLAGES), A., i, 291.
- 5-chloro-2 : 4 : 6-trinitro- (KLAGES), A., i, 291.
- 4 : 5-dinitroso- (ZINCKE), A., i, 430.
- p*-Xylene, magnetic rotatory power, &c., of (PERKIN), T., 1130, 1159, 1192, 1193, 1229, 1241.
- tetrachloro- (RUPP), A., i, 618.
- m*-Xyleneazophenetol, reduction of (JACOBSEN and SCHKOLNIK), A., i, 27.
- m*-Xyleneazophenol (JACOBSEN and SCHKOLNIK), A., i, 27.
- 1 : 3 : 4-Xylenesulphonealanine, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- m*-Xylene-2-sulphonamide, 5-chloro- (KLAGES), A., i, 291.
- 1 : 3 : 4-Xylenesulphoneglycocine, electrolytic conductivity of solutions of (LOVÉN), A., ii, 413.
- m*-Xylene-2-sulphonic acid, 5-chloro- (KLAGES), A., i, 291.
- m*-Xylene-2-sulphonic chloride, 5-chloro- (KLAGES), A., i, 291.
- 1 : 3 : 4-Xylenol, tribromo-, mono- and di-bromide (AUWERS and CAMPENHAUSEN), A., i, 424.
- Xylic acid (2 : 4-dimethylbenzoic acid) (BOUVEAULT), A., i, 649.
- p*-Xylic acid (3 : 4-dimethylbenzoic acid), reduction of (BENTLEY and PERKIN), P., 1896, 79.
- 1 : 3 : 4-Xylidine, behaviour of, towards acetaldehyde (MILLER and PLÖCHL), A., i, 534.
- colouring matter obtained by oxidation of (HOFMANN LECTURE), T., 605.
- 2 : 5-dinitro-, and its acetyl derivative (KLAGES), A., i, 291.
- 5-iodo-, and its salts and acetyl derivative, and nitrile from (KERSCHBAUM), A., i, 162.
- 1 : 3 : 5-Xylidine, 4-chloro-, and its benzoyl derivative (KLAGES), A., i, 291.
- dichloro-, and its benzoyl derivative (KLAGES), A., i, 291.
- Xylidine-red, discovery of (HOFMANN LECTURE), T., 620.
- Xyloic acid (FISCHER and BROMBERG), A., i, 348.
- m*-Xyloquinone, 4-chloro- (KLAGES), A., i, 291.
- Xylose from cocoa-nut shells (DE HAAS and TOLLENS), A., ii, 64.
- existence of formal derivatives of, in cereal celluloses (CROSS, BEVAN, and SMITH), T., 804; P., 1896, 96.
- identification of, in soluble products of the acid hydrolysis of cellulose (CROSS, BEVAN, and SMITH), T., 811; P., 1896, 96.
- action of acetic anhydride on (BADER), A., i, 336.
- action of alcoholic ammonia on (DE BRUYN and VAN LEENT), A., i, 119.
- action of dilute alkalis on (DE BRUYN), A., i, 116.
- action of nitric acid on (BADER), A., i, 336, 405.
- Xylose- $\alpha$ -allylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Xyloseamine (DE BRUYN and VAN LEENT), A., i, 119.
- Xylose- $\alpha$ -amylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Xylose- $\alpha$ -benzylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Xylosebenzylmercaptal (LAWRENCE), A., i, 272.
- Xylose-ethylenemercaptal (LAWRENCE), A., i, 272.
- Xylose- $\alpha$ -ethylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Xylosenaphthylhydrazone (VAN EKENSTEIN and DE BRUYN), A., i, 588.
- Xylostrimethylenemercaptal (LAWRENCE), A., i, 272.

Xylosotrihydroxyglutaric acid, inactive and *lævo*- (FISCHER and HERBORN), A., i, 587, 588.  
 anhydride (BADER), A., i, 405.  
 Xyloylpropionic acids. See Dimethylbenzoylpropionic acids.  
*p*-Xylol ketone, preparation of (COMSTOCK), A., i, 613.  
*m*-Xylylacetic acid from *i*-campholenic acid (GUERBET and BÉHAL), A., i, 652.  
 Xylylcarbimide, preparation of (HOFMANN LECTURE), T., 715.  
*ab-m*-Xylylcarboxyethylthiocarbamide (DORAN), T., 329; P., 1896, 74.  
*m*-Xylylcarboxylic acid, preparation of (BOUVEAULT), A., i, 616.  
*m*-Xylylene-2 : 5-diamine, 4-chloro-, and its benzoyl derivative (KLAGES), A., i, 291.  
*p*-Xylylene $\alpha$ zodiamine, salts of, and its acetyl and benzoyl derivatives (LUSTIG), A., i, 163.  
 nitro-, salts of (LUSTIG), A., i, 164.  
*p*-Xylylene $\alpha$ zodiphthalamic acid (LUSTIG), A., i, 163.  
*p*-Xylylene $\alpha$ zodiphthalimide (LUSTIG), A., i, 163.  
 nitro- (LUSTIG), A., i, 163.  
*m*-Xylylglyoxylic acid and its ethylic salt (BOUVEAULT), A., i, 616.

## Y.

Yeast, cultivation of pure wine, and its use in the manufacture of wines (MÜLLER), A., ii, 201.  
 enzymes present in (BAU), A., i, 453.  
 fermentation of furfuroids by (CROSS, BEVAN, and SMITH), T., 816; P., 1896, 96.  
 influence of oxygen and hydrogen on fermentation by (RAPF), A., ii, 668.  
 cholesterol from (GÉRARD), A., i, 21.  
 sugar formed in the autodigestion of (SALKOWSKI), A., ii, 202.  
 Yeast, apiculated, fermentation by (RIETSCH and HEISELIN), A., ii, 53.  
 Yeast, elliptical, fermentation by (RIETSCH and HEISELIN), A., ii, 53.  
 Yeast, white and rose, inversion of cane sugar by (FERMI and MONTESANO), A., ii, 443.  
 Yeasts and fungi found on different grapes (MÜLLER), A., ii, 201.  
 fermentation of cane sugar with different (HIEPE), A., ii, 320.  
 reducing power of various pure (NASTUKOFF), A., ii, 202.

Yogoite from Montana (WEED and PIRSSON), A., ii, 192.  
 Ytter spar. See Xenotime.  
 Yttrium and thorium minerals in Norway (SCHMELCK), A., ii, 186.  
 Yttrium carbide (PETERSSON), A., ii, 25; (MOISSAN and ÉTARD), A., ii, 423.  
 niobates (LARSSON), A., ii, 564.  
 oxide, new source of (PHIPSON), A., ii, 422.  
 colloidal solution of (DELAFONTAINE), A., ii, 562.  
 sulphate, electrolytic conductivity of aqueous solutions of (JONES), A., ii, 462.  
 Yttrium, separation of thorium from (FRESENIUS and HINTZ), A., ii, 677.

## Z.

Zeolites, dehydration of, and substitution of ammonia for water in, &c. (FRIEDEL), A., ii, 481.  
 Zeorin, occurrence of, in different lichens (ZOFF), A., i, 104.  
 Zeorinin, preparation and properties of (ZOFF), A., i, 104.  
 Zinc, atomic weight of (RICHARDS and ROGERS), A., ii, 21.  
 presence of carbon and sulphur in (FUNK), A., ii, 247.  
 action of, on a photographic plate (COLSON), A., ii, 601.  
 boiling point of (LE CHATELIER), A., ii, 87.  
 vapour density of (BILZ), A., ii, 152.  
 rate of diffusion of, in mercury (HUMPHREYS), T., 251; P., 1896, 9.  
 reduction of solutions of salts by (KIPPENBERGER), A., ii, 522.  
 Zinc alloys with cadmium, solution, and diffusion of, in mercury (HUMPHREYS), T., 1681; P., 1896, 220.  
 with copper, structure and constitution of (CHARPY), A., ii, 421.  
 mechanical properties of (CHARPY), A., ii, 170.  
 solution and diffusion of, in mercury (HUMPHREYS), T., 1682; P., 1896, 220.  
 with silver, melting points of (GAUTIER), A., ii, 646.  
 Zinc salts, physiological action of (ATHANASIU and LANGLOIS), A., ii, 319.  
 bromide, thermochemical data of the compound of mercuric cyanide with (VARET), A., ii, 88.  
 hydrated basic carbonate of, from Spain (CESÀRO), A., ii, 479.

- Zinc chloride, fused, electrolysis of (LORENZ), A., ii, 22.  
 potential difference required to electrolyse fused (LORENZ), A., ii, 586.  
 oxychloride (PERROT), A., ii, 561.  
 chromate and dichromate (SCHULZE), A., ii, 25.  
 hydroxide, electrochemical preparation of (LORENZ), A., ii, 647.  
 oxyiodides (TASSILLY), A., ii, 362.  
 niobate (LARSSON), A., ii, 564.  
 thiophosphite (FERRAND), A., ii, 418.  
 thiopyrophosphate (FERRAND), A., ii, 473.  
 sulphate, purification of (KNOBLOCH), A., ii, 562.  
 energy and electromotive force required to electrolyse (JAHN), A., ii, 230, 231.  
 thermal expansion of solutions of (DE LANNON), A., ii, 233.  
 dissociation pressure of hydrated (MULLER-ERZBACH), A., ii, 295.  
 solubility of isomorphous mixtures of magnesium sulphate and (STORTENBEKER), A., ii, 14.  
 caesium sulphate, density and optical behaviour of (TUTTON), T., 383.  
 magnesium alum from New South Wales (CARD), A., ii, 252.  
 potassium sulphate, density and optical behaviour of (TUTTON), T., 374.  
 rubidium sulphate, density and optical behaviour of (TUTTON), T., 379.  
 sulphide, physical change produced by gently heating (SPRING), A., ii, 290.  
 effect of high temperature on amorphous (MOURLLOT), A., ii, 603.
- Zinc cyanide, technical estimation of (BETTEL), A., ii, 224.  
 ethobromide (LACHMANN), A., i, 460.  
 methyl, preparation of, from zinc and methylic iodide (IPATIEFF), A., i, 402.
- Zinc, estimation of, electrolytically (NICHOLSON and AVERY), A., ii, 627.  
 estimation of, volumetrically (STONE), A., ii, 126; (LESCOEUR and LEMAIRE), A., ii, 501.
- Zinc, estimation of, volumetrically in its ores (DE KONINCK and PROST), A., ii, 675.  
 estimation of, volumetrically by alkalis (RUOSS), A., ii, 500.  
 estimation of, volumetrically by potassium ferrocyanide (DE KONINCK and PROST), A., ii, 675.  
 estimation of, in dried apples (LEGLER), A., ii, 450.  
 estimation of, in organic salts (VON RITTER), A., ii, 578.  
 estimation of carbon and sulphur in (FUNK), A., ii, 274.  
 separation of, qualitatively from iron, nickel, cobalt, chromium, manganese, and aluminium (HARE), A., ii, 127.  
 separation of copper from (MAWROW and MUTHMANN), A., ii, 338.  
 separation of manganese and copper from (JANNASCH), A., ii, 546.  
 separation of manganese from (JANNASCH and VON CLOEDT), A., ii, 220.  
 separation of nickel from (JANNASCH), A., ii, 546.  
 separation electrolytically from gold and silver (SMITH and WALLACE), A., ii, 220.
- "Zinkmanganerz" from Carinthia (BRUNLECHNER), A., ii, 256.
- Zinnwaldite, constitution of (CLARKE), A., ii, 38.
- Zirconium carbide (MOISSAN and LENGFIELD), A., ii, 428.  
 oxychloride (VENABLE), A., ii, 478.  
 caesium fluorides (WELLS and FOOTE), A., ii, 179.  
 niobate (LARSSON), A., ii, 564.  
 oxide, new source of (PHIPSON), A., ii, 422.  
 dioxide, action of phosphorus pentachloride on (SMITH and HARRIS), A., ii, 179.  
 Zirconic acid, calcium and lithium salts of (VENABLE and CLARKE), A., ii, 653.
- Zirconium sulphite (VENABLE and BASKERVILLE), A., ii, 527.
- Zoisite from Styria (LOVREKOVIĆ), A., ii, 433.  
 from Switzerland and the Tyrol (WEINSCHENK), A., ii, 569.

## APPENDIX.

**Agricultural Chemistry.****ANIMAL PRODUCTS AND FEEDING EXPERIMENTS.**

- Brushwood as a food for animals (RAMM), A., ii, 45.
- Buckwheat grain as a food for sheep (WICKE and WEISKE), A., ii, 198.
- Butter, effect of temperature on the refractive power of (BECKURTS and HEILER), A., ii, 81.
- melting point of, from different animals (PIZZI), A., ii, 120.
- Butter, analysis of, by the refractometer and polarising microscope (BESANA), A., ii, 129.
- examination of, by the borax process (LEVIN), A., ii, 454
- estimation of butyric acid in (WILCOX), P., 1895, 202.
- estimation of volatile and insoluble acids in (BEAL), A., ii, 129.
- Cattle, feeding experiments on (RAMM), A., ii, 45; (SEBELEIN), A., ii, 197; (MALPEAUX), A., ii, 662.
- poisoning of, by potassium nitrate and by corn stalks (MAYO), A., ii, 264.
- Cellulose, feeding experiments with, on sheep (LEHMANN), A., ii, 262.
- Cheese, action of alcoholic hydrogen chloride and sodium nitrite on (CURTIUS), A., i, 337.
- experiments on the digestibility of (STUTZER), A., ii, 683.
- Cheese, examination of (STUTZER), A., ii, 683.
- extraction of fat from (HENZOLD), A., ii, 680.
- estimation of albumose and peptone in (STUTZER), A., ii, 684.
- margarine, &c., analysis of (KÜHN), A., ii, 82.
- Fat, feeding experiments with, on sheep (LEHMANN), A., ii, 262.
- Feeding cakes, estimation of essential oil of mustard in (PASSON), A., ii, 678.
- Feeding experiments with pumpkin seed and buckwheat grain (WICKE and WEISKE), A., ii, 198.
- Feeding of cattle with whale and herring meal (SEBELIEN), A., ii, 197.
- Feeding, influence of variations in, on composition of meat (WOODS and PHELPS), A., ii, 44.
- Fibre, crude, digestion and food value of (HOLDEFLEISS), A., ii, 616.
- Food, or foods, effects of different, on the production of fat and flesh (LEHMANN), A., ii, 262.
- in relation to brittleness of bones in cattle (KELLNER, KÖHLER, and BARNSTEIN), A., ii, 46.
- brushwood as a, for animals (RAMM), A., ii, 45.
- fat and starch as (WICKE and WEISKE), A., ii, 535.
- crude fibre as a (HOLDEFLEISS), A., ii, 616.
- pentosans as (WEISKE), A., ii, 375.
- pumpkin seed and buckwheat grain as (WICKE and WEISKE), A., ii, 198.
- sugar as a, for cattle (MALPEAUX), A., ii, 662.
- whale and herring meal as a (SEBELIEN), A., ii, 197.
- Forage, brushwood as a substitute for (RAMM), A., ii, 45.
- Hay, digestion and food value of (HOLDEFLEISS), A., ii, 616.
- Herring meal, feeding experiments with (SEBELIEN), A., ii, 197.
- Milk. See main Index.
- Poison, potassium nitrate as a, in cattle (MAYO), A., ii, 264.
- corn-stalks as, in cattle (MAYO), A., ii, 264.
- Pumpkin seed cake as a food for sheep (WICKE and WEISKE), A., ii, 198.
- Sheep, feeding experiments on (WOODS and PHELPS), A., ii, 44; (WICKE and WEISKE), A., ii, 198; (LEHMANN), A., ii, 268.
- Starch, feeding experiments with, on sheep (LEHMANN), A., ii, 262.
- Sterilisation of milk (CAZENEUVE), A., ii, 120.
- Sugar as a food (STOKVIS, MOSSO, and HARLEY), A., ii, 44.
- as a food for cattle (MALPEAUX), A., ii, 662.

## MANURES.

- Alumina, influence of, in reversion of superphosphate (SMETHAM), A., ii, 364.
- Bone meal as a manure (MÄRCKER), A., ii, 270.  
phosphates, effect of, on different soils (ULBRICHT), A., ii, 68.
- Carnallite, effect of, on yield and composition of grass (MÄRCKER), A., ii, 271.
- Dung, horse-, influence of, on nitrification (PAGNOUL and DEHÉRAIN), A., ii, 329.
- Guano, Peruvian, estimation of nitrogen in (HEIBER), A., ii, 217.
- Lime, effect of different amounts of magnesia and of, on plants (LOEW and HONDA), A., ii, 446.  
action of, on nodule bacteria (TACKE), A., ii, 439.
- Quicklime, use of, as a manure for cultivation of *Leguminosæ* (SALFELD), A., ii, 332.
- Magnesium, effect of salts of, as manure (LARBALÉTRIER and MALPEAUX), A., ii, 446.
- Magnesia, effect of different amounts of lime and of, on plants (LOEW and HONDA), A., ii, 446.
- Manure, use of quicklime as a, for cultivation of *Leguminosæ* (SALFELD), A., ii, 332.
- pigeon (SCHULZE), A., ii, 215.
- stable, decomposition of nitrogen compounds in (JENTYS), A., ii, 619.
- Manures, availability of nitrogen in various (JOHNSON and JENKINS), A., ii, 620.  
action of different, in formation of sugar in beetroot (SCHNEIDWIND and MÜLLER), A., ii, 539.  
effect of different, on oats and turnips (SCHREIBER), A., ii, 66.  
effect of different, on plants (MÄRCKER), A., ii, 270.  
effect of different, on rye (REMY), A., ii, 670.  
effect of, on the composition and combustibility of tobacco (PATTERSON), A., ii, 211.  
effect of potash, on different soils (WOOD), T., 288; P., 1896, 13.  
increase of crop by potash, compared with available potash in soil (WOOD), T., 289; P., 1896, 13.  
cause of loss of nitrogen in (BURRI, HERFELDT, and STUTZER), A., ii, 572.
- Manures, experiments to avoid loss of nitrogen in (BURRI, HERFELDT, and STUTZER), A., ii, 445.  
phosphate (VON LIEBENBERG), A., ii, 214.  
selection of, for particular soils (PASSERINI), A., ii, 330.
- Manures, artificial, analysis of (GRUBBER), A., ii, 74.  
estimation of nitrogen, new distillation tube for (HOPKINS), A., ii, 543.  
estimation of nitrogen in, in presence of nitrates (SHERMAN), A., ii, 125.
- Peruvian guano, estimation of nitrogen in (HEIBER), A., ii, 217.
- estimation of phosphoric acid in (VEITCH), A., ii, 543.
- estimation of phosphoric acid in, gravimetrically (MEILLÈRE), A., ii, 389.
- estimation of phosphoric acid in, volumetrically (LINDEMANN and MOTTEU), A., ii, 388.
- estimation of phosphoric acid in, by the citrate method (RUNYAN and WILEY), A., ii, 126; (BERGAMI), A., ii, 273.
- estimation of citrate-soluble phosphoric acid in (REITMAIR), A., ii, 575.
- estimation of insoluble phosphoric acid in (BRYANT), A., ii, 623.
- estimation of insoluble phosphoric acid in, volumetrically (EDWARDS), A., ii, 273.
- estimation of potash in, as potassium platinochloride (WINTON), A., ii, 126.
- estimation of sodium and potassium in (CAMERON), A., ii, 392.
- Manurial value of basic slag as determined by citrate solubility (WAGNER), A., ii, 68.
- Nitrogen, assimilation of, by plants (STOKLASA), A., ii, 204; (ÆBY), A., ii, 381.  
assimilation of organic, by plants (PAGNOUL), A., ii, 67.  
assimilation of, in plants from nitrates and ammonia (KINOSHITA), A., ii, 55.  
assimilation of, by rye (REMY), A., ii, 670.  
effect of abundant application of, on the assimilation and respiration of plants (MÜLLER), A., ii, 54.



- Nitrogen, availability of, in various fertilisers (JOHNSON and JENKINS), A., ii, 620.  
 cause of loss of, in manure (BURRI, HERFELDT, and STUTZER), A., ii, 572.  
 experiments to avoid loss of, in manure (BURRI, HERFELDT, and STUTZER), A., ii, 445.  
 decomposition of, compounds in manure (JENTYS), A., ii, 619.  
 value of, in various manures as compared with sodium nitrate (MÄRCKER), A., ii, 270.
- Nitrates, action of vegetable acids on insoluble phosphates in presence of (LOGES), A., ii, 621.  
 effect of, on growth of plants (PITSCH and VAN HAARST), A., ii, 212.  
 as manure for rye (REMY), A., ii, 670.
- Phosphorus in various forms as a manure (MÄRCKER), A., ii, 270.  
 application of, to soils as phosphates and superphosphates (PAGEOT), A., ii, 269.
- Phosphoric acid required for cultivated plants (SMETS and SCHREIBER), A., ii, 68.  
 result of application of, in different forms to oats and turnips (SCHREIBER), A., ii, 66.  
 of basic slag, citrate solubility of the (HOFFMEISTER), A., ii, 214.
- Phosphates, insoluble, action of vegetable acids on, in presence of nitrates (LOGES), A., ii, 621.  
 assimilation of, by rye (REMY), A., ii, 670.  
 application of crude, to soil (PAGEOT), A., ii, 269.  
 bone, effect of, on different soils (ULBRECHT), A., ii, 68.
- Phosphates, use of, to prevent loss of nitrogen as ammonia in manures (BURRI, HERFELDT, and STUTZER), A., ii, 445.  
 manuring, experiments on (VON LIEBENBERG), A., ii, 214.  
 Superphosphates, application of, to soil (PAGEOT), A., ii, 269.  
 effect of oxide of iron and alumina on the reversion of (SMETHAM), A., ii, 364.  
 estimation of water in (DE KONINGH), A., ii, 541.
- Slag, basic, action of vegetable acids on, in presence of nitrates (LOGES), A., ii, 621.  
 application of, to soil (PAGEOT), A., ii, 269.  
 as a manure (MÄRCKER), A., ii, 270.  
 citrate solubility of the phosphoric acid of (HOFFMEISTER), A., ii, 214.  
 citrate solubility of, as expressing its manurial value (WAGNER), A., ii, 68.
- Pigeon manure (SCHULZE), A., ii, 215.
- Potassium, absorption of, by plants (LECHARTIER), A., ii, 331.  
 as plant food, importance of (VON FEILITZEN), A., ii, 269.  
 assimilation of, by rye (REMY), A., ii, 670.  
 required for cultivated plants (SMETS and SCHREIBER), A., ii, 68.  
 salts, effect of, on the growth of beetroot (MÄRCKER), A., ii, 270.  
 manure, increase of crop by, compared with available potash in soil (WOOD), T., 289; P., 1896, 13.
- Sodium nitrate as a manure for beetroot (MÄRCKER), A., ii, 270.

## PLANTS.

- Germination, chemical changes during (REY-PAILHADE), A., ii, 326.  
 changes during, of barley (EHRICH), A., ii, 541.  
 effect of chemical substances on (SIGMUND), A., ii, 441.  
 effect of certain substances as manures on (CLAUDEL and CROCHETELLE), A., ii, 442.  
 effect of phosphoric acid and phosphates on (CLAUDEL and CROCHETELLE), A., ii, 442.  
 fermentation during (GRÜSS), A., ii, 669.
- Germination of plants (PRIANISCHNIKOFF), A., ii, 380.  
 of seeds, effect of alkaloids on (MOSSO), A., ii, 326.
- Nitrogen, fixation of, in *Leguminosæ* (STOKLASA), A., ii, 205.  
 relation of symbiosis and the assimilation of (STOKLASA), A., ii, 204.  
 as nitrates in plants (SCHULZE), A., ii, 494.  
 acids, injury to plants by (KÖNIG and HASELHOFF), A., ii, 210.
- Nitrates, effect of, on algæ (WYPLEL), A., ii, 267.

- Plant food, importance of potash as (VON FEILITZEN), A., ii, 269.
- Plants, assimilation of nitrogen by (STOKLASA), A., ii, 204; (AEBY), A., ii, 381.
- assimilation of organic nitrogen by (PAGNOUL), A., ii, 67.
- assimilation of nitrogen in, from nitrates and ammonia (KINOSHITA), A., ii, 55.
- assimilation of the nutritive matters of the soil by (KÖNIG and HASELHOFF), A., ii, 213.
- effect of different amounts of lime and magnesia on (LOEW and HONDA), A., ii, 446.
- effect of magnesium salts as manure on (LARBALÉTRIER and MALPEAUX), A., ii, 446.
- effect of different manures on (MÄRCKER), A., ii, 270.
- effect of various manures on growth of certain (DEHÉRAIN), A., ii, 331.
- effect of different mineral manures on, with reference to nodule bacteria (TACKE), A., ii, 439.
- germination of (PRIANISCHNIKOFF), A., ii, 380.
- effect of chemical substances on germination of (SIGMUND), A., ii, 441.
- effect of abundant application of nitrogen on the assimilation and respiration of (MÜLLER), A., ii, 54.
- effect of nitrates on the growth of (PITSCH and VAN HAARST), A., ii, 212.
- nitrogen as nitrates in (SCHULZE), A., ii, 494.
- nitrogen as nitrates in seedlings of (SCHULZE), A., ii, 494.
- injury to, by nitrogen acids (KÖNIG and HASELHOFF), A., ii, 210.
- nutrition of, by inorganic substances (BENECKE), A., ii, 572.
- nutrition of, influence of light on the consumption of asparagine in (KINOSHITA), A., ii, 54.
- nutrition of, influence of methylic alcohol in the (KINOSHITA), A., ii, 54.
- nutrition of, influence of calcium phosphate and phosphorus on the (STOKLASA), A., ii, 266.
- phosphate manuring of (VON LIEBENBERG), A., ii, 214.
- requirements for potash and phosphoric acid of (SMETS and SCHRIEBER), A., ii, 384.
- minimum absorption of potassium by (LECHARTIER), A., ii, 331.
- Plants, detection of proteosomes in (LOEW), A., ii, 58.
- identification and isolation of acids in (LINDET), A., ii, 539.
- occurrence of albumin in spring and autumn in (DAIKUHARA), A., ii, 55.
- occurrence of boric acid in (JAY), A., ii, 327.
- occurrence of glutamine in (SCHULZE), A., ii, 572.
- occurrence of maltase in (BOURQUELOT), A., i, 111.
- pectase in (BERTRAND and MALLEVRE), A., ii, 267.
- formation of amides in (TREUB), A., ii, 328.
- formation of asparagine in, supplied with nitrates and ammonia (KINOSHITA), A., ii, 54.
- formation of pentoses in (GOETZE and PFEIFFER), A., ii, 443.
- formation of proteids and carbohydrates in (SAPOSCHNIKOFF), A., ii, 537.
- formation of proteids from asparagine in (KINOSHITA), A., ii, 54.
- formation of proteids in, and the part played by asparagine in their nutrition (LOEW), A., ii, 56.
- formation from different organic compounds of proteids in chlorophyllie (LOEW), A., ii, 57.
- formation of tissue material in (CROSS, BEVAN, and SMITH), T., 1605; P., 1896, 174.
- proteids from wheat meal and other meals (KJELDGAHL), A., i, 583.
- amount of substance soluble in water in (GAIN), A., ii, 268.
- See further Plants in main Index.
- Plants, individual:—
- Barley plant, analysis of (CROSS, BEVAN, and SMITH), A., ii, 122.
- assimilation of nitrogen from nitrates and ammonia in (KINOSHITA), A., ii, 55.
- assimilation of the nutritive matters of the soil by (KÖNIG and HASELHOFF), A., ii, 213.
- changes in, during germination (EHRICH), A., ii, 541.
- effect of magnesium salts and iron sulphate as manure on (LARBALÉTRIER and MALPEAUX), A., ii, 446.
- effect of various manures on growth of (DEHÉRAIN), A., ii, 331.
- effect of weather on permanent fibre in (CROSS, BEVAN, and SMITH), A., ii, 122.

## Plants, individual:—

Barley, yield of, from different soils (WOOD), T., 288; P., 1896, 13.

straw, carbohydrates of (CROSS, BEVAN, and SMITH), T., 1604; P., 1896, 174.

Beans, assimilation of nitrogen by (BILLWILLER), A., ii, 440.

assimilation of the nutritive matters of the soil by (KÖNIG and HASELHOFF), A., ii, 213.

Beet (*Beta vulgaris*), potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.

accumulation of sugar in the root of the (MAQUENNE), A., ii, 328.

nutrition and formation of substance in sugar, in second year of growth (STROHMER, BRIEM, and STIFT), A., ii, 538.

Beetroot, action of different manures in formation of sugar in (SCHNEIDEWIND and MÜLLER), A., ii, 539.

effect of potassium salts and potassium sodium nitrates on the growth of (MÄRCKER), A., ii, 270.

estimation of organic and inorganic acidity simultaneously in (SIDERSKY), A., ii, 397.

*Cannabis sativa*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.

Cereals, assimilation of nitrogen by (REMY), A., ii, 670.

Clover, effect of potash manure on (VON FEILITZEN), A., ii, 269.

*Faba vulgaris*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.

*Fagopyrum esculentum*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.

Grain, effect of magnesium salts and iron sulphate as manure on (LARBALÉTRIER and MALPEAUX), A., ii, 446.

*Graminaceæ*, assimilation of the nutritive matter of the soil by (KÖNIG and HASELHOFF), A., ii, 213.

Grass, effect of kainite and carnallite on the yield and composition of (MÄRCKER), A., ii, 271.

Haricots, effect of copper oxide on the nutrition of (TSCHIRCH), A., ii, 329.

Hops, composition of (BEHRENS), A., ii, 207.

## Plants, individual:—

*Indigofera*, formation of indigo in plants of the (VAN LOOKEREN and VAN DER VEEN), A., ii, 207.

*Leguminosæ*, assimilation of the nutritive matters of the soil by (KÖNIG and HASELHOFF), A., ii, 213.

fixation of nitrogen in (STOKLASA), A., ii, 205.

use of quicklime as a manure for cultivation of (SALFELD), A., ii, 332.

*Lupinus angustifolia*, assimilation of nitrogen by (STOKLASA), A., ii, 204.

*luteus*, assimilation of nitrogen by (STOKLASA), A., ii, 204.

*Lupinus*, black Siberian, amount of alkaloids in (SCHULZE), A., ii, 211.

Maize, assimilation of nitrogen from nitrates and ammonia in (KINOSHITA), A., ii, 55.

potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.

Melons, composition of different (BERSCH), A., ii, 384.

Moulds, assimilation of nitrogen by (PUREWITSCH), A., ii, 571.

effect of different organic compounds in the nutrition of (LOEW), A., ii, 56.

Mustard, assimilation of nitrogen by (ÆBY), A., ii, 381.

Oats, assimilation of phosphorus by (STOKLASA), A., ii, 266.

effect of potash manure on (VON FEILITZEN), A., ii, 269.

identification of various kinds of (BALLAND), A., ii, 65.

*Papilionaceæ*, nitrogen assimilation by (BILLWILLER), A., ii, 440.

Pea, proteids of the (OSBORNE and CAMPBELL), A., i, 715.

nitrogen assimilation of (ÆBY), A., ii, 381; (BILLWILLER), A., ii, 440.

effect of potash manure on (VON FEILITZEN), A., ii, 269.

effect of chemical substances on the germination of seeds of (SIGMUND), A., ii, 441.

Potatoes, effect of magnesium salts and iron sulphate as manure on (LARBALÉTRIER and MALPEAUX), A., ii, 446.

Rye, effect of climate on the assimilation by (REMY), A., ii, 670.

effect of various manures on (REMY), A., ii, 670.

effect of potash manure on (VON FEILITZEN), A., ii, 269.

## Plants, individual :—

- Secale, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Soja beans, preparation of tofu and koridofu from (INOUE), A., ii, 65.
- Sulla, growth of, and its percentage composition (GRANDEAU), A., ii, 268.
- Tobacco, combustibility of (CSERHÁZI), A., ii, 444.
- effect of manures on the composition and combustibility of (PATTERSON), A., ii, 211.
- Triticum*, mineral nutrition of (BENECKE), A., ii, 572.
- spelta*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Trifolium incarnatum*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.

## Plants, individual :—

- Trifolium pratense*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- repens*, potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Vetches, nitrogen assimilation of (BILLWILLER), A., ii, 440.
- Vicia sativa*, nitrogenous constituents of (SCHULZE), A., ii, 208.
- potash and phosphoric acid required by (SMETS and SCHREIBER), A., ii, 384.
- Vine, effect of copper salts on the growth of the (BERLESE and SOSTEGNI), A., ii, 267.
- Wheat, effect of various manures on growth of (DEHÉRAIN), A., ii, 331.
- Tofu, preparation and composition of (INOUE), A., ii, 65.

## SOILS.

- Calcium carbonate, estimation of, in soil (MAUZELIUS and VESTERBERG), A., ii, 219.
- Calcium oxide (*lime*), estimation of, in soil (BASILE and DE CELLIS), A., ii, 126.
- estimation of, rapidly in soils (NANTIER), A., ii, 545.
- Fertility of soils, effect of cultivation on (SNYDER), A., ii, 214.
- Hippuric acid, behaviour of, in soils (YOSHIMURA), A., ii, 67.
- Nitrification, conditions of (GODLEWSKI), A., ii, 669.
- effect of carbon bisulphide on (PAGNOUL), A., ii, 67.
- influence of horsedung and carbon bisulphide on (PAGNOUL and DEHÉRAIN), A., ii, 329.
- during decomposition of vegetable matters (BRÉAL), A., ii, 670.
- in regard to polluted water (ADENEY), A., ii, 325.
- of various manures (MARCKER), A., ii, 270.
- rate of, in different soils (MARCILLE), A., ii, 669.
- Nitrifying organisms, action of, on dead vegetable matter (BRÉAL), A., ii, 670.
- Nitrates, reduction of, in arable soil (BRÉAL), A., ii, 444.
- Nitrogen, transformations of, in the soil (PAGNOUL and DEHÉRAIN), A., ii, 329.

- Nitrogen, losses of, in waters of infiltration (SCHLESING), A., ii, 69.
- Phosphoric acid, soluble, of the soil, action of lime and magnesia on (SCHREIBER), A., ii, 66.
- Phosphates, action of, on solubility of the potassium of the soil (PASSERINI), A., ii, 330.
- Potassium of the soil, action of salts on the solubility of (PASSERINI), A., ii, 330.
- Sodium chloride and nitrate, action of, on the solubility of the potassium of the soil (PASSERINI), A., ii, 330.
- Soil, or soils, analysis of different (WOOD), T., 289; P., 1896, 13.
- analysis of, by plants (LECHARTIER), A., ii, 331.
- assimilation of the nutritive matters of the, by plants (KÖNIG and HASELHOFF), A., ii, 213.
- effect of bone phosphates on different (ULBRICHT), A., ii, 68.
- effect of copper salts on the (BERLESE and SOSTEGNI), A., ii, 267.
- behaviour of hippuric acid and salts in (YOSHIMURA), A., ii, 67.
- action of lime and magnesia on the soluble phosphoric acid of the (SCHREIBER), A., ii, 66.
- action of salts on the solubility of the potassium of (PASSERINI), A., ii, 330.

Soil, effect of addition of, to dead vegetable matters (BRÉAL), A., ii, 670.

nitrogen assimilation and bacteria of the (STOKLASA), A., ii, 207.

rate of nitrification in different (MARCILLE), A., ii, 669.

reduction of nitrates in arable (BRÉAL), A., ii, 444.

Soils, acid, application of phosphates and superphosphates to (PAGEOT), A., ii, 269.

American, composition of native and cultivated (SNYDER), A., ii, 214.

exhausted, effect of carbon bisulphide on (OBERLIN), A., ii, 67.

fertile, influence of sulphur in forming (GRANDEAU), A., ii, 269.

Soils, Persian, examination of (NATTERER), A., ii, 68.

Soil, apparatus for estimating the water absorbed by the (BEESON), A., ii, 496.

estimation of calcium and magnesium carbonates in (MAUZELIUS and VESTERBERG), A., ii, 219.

estimation of lime in (BASILE and DE CELLIS), A., ii, 126.

estimation of lime in, rapidly (NANTIER), A., ii, 545.

estimation of phosphoric acid in (WILLIAMS), A., ii, 334; (KILGORE), A., ii, 335; (GLADDING), A., ii, 333.

estimation of available potash and phosphoric acid in (WOOD), T., 287; P., 1896, 13.